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(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

A Clinical Study of the Serum Diagnosis of Typhoid Fever (Widal's Reaction.)

By H. P. BROWN, M. D., of Brierfield, Va., ex-Resident Physician Polyclinic Hospital, and
JOHN H. KINTER, M. D., of Philadelphia, Resident Physician Polyclinic Hospital.

(From the Polyclinic Laboratories.)

About a year ago, while one of us was in conversation with a practitioner of long experience and accurate powers of observation, the subject of the serum diagnosis of typhoid fever was mentioned. The practitioner expressed it as his opinion that the serum diagnosis was not an accurate method for the determination of the existence of this infection; that it was frequently present when typhoid fever did not exist in the patient; and that it did not appear until a time at which the clinical symptoms would be sufficiently characteristic to permit of the establishment of a diagnosis.

While we knew that the subject had been studied by others, we felt the need of a set of figures from our own experience with

which to attack the position of our clinical friend. Consequently, we undertook to examine the blood of every patient admitted to the Polyclinic Hospital for three months, so as to determine the number of cases of clinical typhoid fever in which the agglutination of *bacillus typhosus* was wanting; (2) the number of cases clinically not typhoid fever in which the agglutination of *bacillus typhosus* was present; and, (3) the average day of the disease on which the agglutination was first noticed. Three hundred examinations were made in two hundred and fifty-two cases.

We employed the following technic: The blood was collected in capillary tubes from a puncture made in the ear, and was allowed to clot. The serum then pipetted off with a capillary pipette. The culture used was a culture obtained from the Laboratory of the Pennsylvania State Department of Health through the kindness of the Director of the Laboratory, Dr. Herbert Fox. The serum was diluted with nineteen volumes of distilled water, and one platinum-loopfull of this one in twenty dilution was mixed with one platinum-loopfull of a bouillon culture of the organism, about eighteen hours old, grown at room temperature, and filtered before being used, making a dilution of serum one in forty.

This mixture was examined in a hanging drop preparation, using a 1/6-inch lens, and artificial light. The time limit set for the reaction was twenty minutes.

A positive reaction was recorded if there was distinct clumping and cessation of motion. A negative reaction was recorded when there was no clumping and no cessation of motion. In some cases there was a tendency to form small clumps of bacilli with the persistence of free motion. Such a reaction was considered doubtful, and if on a second examination within two to ten days a similar result was noted the reaction was recorded as being negative.

During the course of the study a specimen of blood was submitted to us from an outside source which had been reported upon from one of the public laboratories in Philadelphia as being positive. The patient had a continuous fever, attending symptoms of pelvic inflammation. In a one in forty dilution of the serum we found a tendency to form small clumps of bacilli, but no cessation of motion. We gave an opinion that the reaction was negative, and this opinion was confirmed by the subsequent clinical course of the case. It is stated in many of the text-books that a dilution of

one part blood serum in forty parts of fluid should be allowed forty minutes for the development of the agglutination phenomena. We have found, however, that by allowing this length of time to elapse we get a number of the questionable reactions which complicate the interpretation. Hence, we adhere to the time limit of twenty minutes. Furthermore, we report as negative those reactions in which in this time only very small clumps of bacilli are found without cessation of motion.

Case No. 91 of our series was of this character. The patient, a man, aged thirty-four years, was admitted with a provisional diagnosis of typhoid fever. The first was questionable, three other reactions were distinctly negative, and two tests made with a paratyphoid organism were negative. The physical signs of pneumonia were distinctly demonstrable a few days after the first test was made.

Case No. 23, was an example of a patient in whom no suspicion of typhoid fever existed in which a distinctly positive reaction was obtained, according to our definition of a positive reaction. The patient was a female, aged twenty-seven years, was admitted for extrauterine pregnancy, on April 12. The agglutination test was positive in twenty minutes. On the 18th it was positive in ten minutes. On the 28th it was positive in six minutes. On that date we tried the reaction in a dilution of one part blood serum in fifty parts indifferent fluid, and found that it was positive in seven minutes. Dilutions of one in one hundred, and in one hundred and fifty, and one in two hundred were negative after twenty-four hours standing. This patient had had typhoid fever seven years before. The agglutinins were present in her blood serum in sufficient quantity to give positive agglutination phenomena in a dilution of one in fifty, but not in a dilution of one in one hundred.

Reference to the accompanying table will show the details of the examinations. We may group our results as follows: First, cases of acute infection of typhoid type in which the reaction was positive, sixteen.

Second, cases of acute infection of typhoid type in which the reaction was negative or questionable, seven.

Third, cases in which there was no suspicion of typhoid fever in which the reaction was negative, two hundred and fifteen.

Fourth, cases in which there was no clinical evidence of typhoid fever, in which the reaction was positive, fourteen.

The cases in the first and third groups need no elaboration. The first examination gave information of a definite character which was confirmed by the subsequent clinical course of the case. It is in the second and fourth groups of cases that further studies were necessary.

There were seven patients admitted to the wards with a provisional diagnosis of typhoid fever in which the first agglutination reaction was negative or doubtful; numbers 3, 7, 12, 45, 91, 221, and 235.

Case number 3 was shown by examination of the feces to be one of uncinariasis, and the second test was distinctly negative. Cases number 7, 45, 221, and 235 proved to be typhoid fever and the second test was distinctly positive.

Case number 91 has already been referred to.

Case number 12 was very interesting. The patient was a negro, female, aged nine years. The first test was negative, but the clinical symptoms were of such a distinct typhoid nature that five other tests were made all of which were negative. A serum reaction was also made with a culture of *bacillus paratyphosus* which proved negative. The clinician in charge of the case (Dr. Hamill) subsequently made a diagnosis of miliary tuberculosis. The patient was finally discharged cured; but we have been unable to trace the child, and so do not know her ultimate fate.

There were fourteen patients admitted with conditions which did not simulate typhoid fever, but in whom there was a positive agglutination reaction with *bacillus typhosus*; numbers 23, 36, 37, 39, 42, 52, 71, 74, 83, 116, 125, 159, 188, and 189. The diagnoses were extrauterine pregnancy, salpingitis, appendicitis, endometritis, acute bronchitis, menorrhagia, fissure in ano, salpingitis, cellulitis of the neck, extrauterine pregnancy, rachitis, gastroenteritis, endometritis, and laceration of the cervix uteri, respectively. Of these cases, No. 159, admitted under diagnosis of gastroenteritis gave two positive agglutination tests eleven days apart and the subsequent course of the case was typical typhoid fever.

Case No. 125 was a case of rachitis in a child, aged twenty months. By some oversight only one examination of this child's

blood was made, and no effort was made to determine whether it had had typhoid fever *in utero*.

The other patients had had typhoid fever at some previous period, and the positive reaction was considered to be due to the persistence of the agglutinins in the blood serum. Case No. 23 was a female, aged twenty-seven years, who had had typhoid fever seven years before. Case No. 36 was a female, aged thirty-nine years, who had had typhoid fever two years before. Case No. 37 was a male, aged twenty-two years, who had had typhoid fever three years before. Case No. 39 was a female, aged nineteen years, who had had typhoid fever six years before. Case No. 42 was a female, aged forty-eight years, who had had typhoid fever two years before. Case No. 52 was a female aged nineteen years, who had had typhoid fever six years before. Case No. 71 was a male, aged forty-five years, who had had typhoid fever thirty years before. Case No. 74 was a female, aged twenty-five years, who had had typhoid fever five years before. Case No. 83 was a male, aged fifty years, who had had typhoid fever six years before. Case No. 116 was a female, aged twenty-six years, who had had typhoid fever six years before. Case No. 188 was a female, aged twenty-six years, who had had typhoid fever five years before. Case No. 189 was a female, aged twenty-seven years, who had had typhoid fever eight years before.

Case No. 71 is of doubtful authenticity. Other examinations should have been made in this case. The test that was made was positive only after the full time limit of twenty minutes. The longest time on record, so far as we could determine, during which this reaction has persisted after an attack of typhoid fever in a case reported by Musser and Swan (*Journal of the American Medical Association*, August 14) in 1897, in which the reaction was present ten years after the attack of typhoid fever.

Our figures are of little value as indicating the period in the course of the infection at which the reaction becomes positive. In the majority of our cases the first reaction tried gave a positive result. In referring to the histories of the cases an estimate was made of the day of the disease on which a positive reaction was obtained. We found that the reaction was positive on the sixth day of the disease in four cases; on the seventh day of the disease in five cases; on the eighth day of the disease in eight

cases; on the ninth day of the disease in two cases; and on the tenth day of the disease in one case.

CONCLUSIONS: From this study we conclude, first, that a positive agglutination test with *bacillus typhosus* indicates that the patient from whom the blood serum was taken has typhoid fever or has had typhoid fever within a comparatively recent period. Second, in the absence of a positive agglutination test the symptoms are due to some other infection, which should be diligently sought for. In some cases it is possible that the agglutinins have not yet developed in sufficient quantity in the patient's blood to give a reaction in a dilution of one in forty. Subsequent tests would clear up this point. Third, the persistent absence of the reaction even in the presence of clinical symptoms of typhoid fever would lead us to give a positive opinion that the disease was not typhoid fever. The most common infections which give a clinical picture of typhoid fever are miliary tuberculosis and paratyphoid fever. No case of the latter infection was encountered in our two hundred and fifty-two cases. That a tuberculous bacteriemia may recover is well established by Landouzy in a paper read at the sixth International Congress on Tuberculosis (See *New York Medical Journal*, October 3, 1908, page 668).

TABLE OF AGGLUTINATION TESTS WITH *BACILLUS TYPHOSUS*.

Number	Age	Sex	Clinical diagnosis—	Previous history of typhoid	Results
1.....	23	F.	Croupous pneumonia	No	—
2.....	20	M.	Surgical hernia	No	—
3.....	18	M.	Uncinariasis	No	?
3a.....	18	M.	Uncinariasis	No	—
4.....	26	F.	Croupous pneumonia	No	—
5.....	19	M.	Bichloride poisoning	No	—
6.....	32	M.	Typhoid	No	+
7.....	23	M.	Typhoid	No	?
7a.....	23	M.	Typhoid	No	+
8.....	20	M.	Incised wound of neck.....	No	—
9.....	26	F.	Gastroenteritis	No	—
10.....	19	F.	Gastralgia	No	—
11.....	27	F.	Typhoid	No	+
12.....	9	F.	Miliary tuberculosis	No	—
12a.....	9	F.	Miliary tuberculosis	No	—
12b.....	9	F.	Miliary tuberculosis	No	—
12c.....	9	F.	Miliary tuberculosis	No	—
12d.....	9	F.	Miliary tuberculosis	No	—
12e.....	9	F.	Miliary tuberculosis	No	—
13.....	23	M.	Typhoid	No	+
13a.....	23	M.	Typhoid	No	+

Number	Age	Sex	Clinical diagnosis	Previous history of typhoid	Results
14.....	28	F.	Salpingitis	No	—
15.....	4	M.	Clubfoot	No	—
16.....	45	F.	Endocarditis	No	—
17.....	32	M.	Sprained ankle	No	—
18.....	16 mos.	F.	Pneumonia empyema	No	—
19.....	50	F.	Carcinoma of stomach.....	No	—
20.....	40	F.	Prolapsus uteri	No	—
21.....	5	F.	Endocarditis	No	—
22.....	14	M.	Endocarditis	11 years ago	—
23.....	27	F.	Ectopic gestation	7 years ago	+
23a.....	27	F.	Ectopic gestation	7 years ago	+
23b.....	27	F.	Ectopic gestation	7 years ago	+
23c.....	27	F.	Ectopic gestation	7 years ago	+
24.....	29	F.	Rheumatic fever	No	—
25.....	2	F.	Broncho pneumonia	No	—
26.....	38	M.	Diabetes mellitus	No	—
27.....	25	F.	Fracture of humerus	No	—
28.....	31	F.	Salpingitis	No	—
29.....	25	M.	Tuberculous adenitis	No	—
30.....	7 mos.	M.	Lobar pneumonia	No	—
31.....	38	M.	Diabetes mellitus	No	—
32.....	17 mos.	F.	Tuberculous Pneumonia	No	—
33.....	33	M.	Clubfoot	No	—
34.....	33	M.	Tuberculous arthritis	No	—
35.....	52	M.	Fracture of tibia and fibula.....	No	—
36.....	39	F.	Salpingitis	2 years ago	+
37.....	22	M.	Appendicitis	3 years ago	+
38.....	28	F.	Fracture femur—alcoholism.....	No	—
39.....	19	F.	Endometritis	6 years ago	+
40.....	40	M.	Osteomyelitis os calcis	No	—
41.....	30	F.	Salpingitis	No	—
41a.....	30	F.	Salpingitis	No	—
42.....	48	F.	Acute bronchitis	2 years ago	—
43.....	6	F.	Autointoxication	No	—
44.....	3	F.	Meningitis	No	—
44a.....	3	F.	Meningitis	No	—
45.....	10	M.	Typhoid	No	+
45a.....	10	M.	Typhoid	No	—
46.....	34	F.	Endometritis	No	—
47.....	35	F.	Laceration of pelvic floor	No	—
48.....	32	F.	Salpingitis	No	—
49.....	35	F.	Alcoholic delirium	2 years ago	—
50.....	20 mos.	F.	Broncho pneumonia	No	—
51.....	3	M.	Broncho pneumonia	No	—
52.....	19	F.	Menorrhagia	4 years ago	+
53.....	32	M.	Pulmonary tuberculosis	No	—
54.....	2 1/2	M.	Cervical adenitis	No	—
55.....	11 mos.	M.	Ptomaine poisoning	No	—
56.....	31	F.	Salpingitis	No	—
57.....	13	M.	Fracture forearm	No	—
58.....	35	F.	Metrorrhagia	No	—
59.....	10	M.	Hemorrhoids	No	—
60.....	38	F.	Leg ulcer	No	—
61.....	36	M.	Hemorrhoids	No	—
62.....	26	F.	Salpingitis	No	—
63.....	25	M.	Asthma	No	—
64.....	47	M.	Stab wound of abdomen.....	No	—

Number	Age	Sex	Clinical diagnosis	Previous history of typhoid	Results
65.....	5	M.	Genu valgus	No	—
66.....	72	M.	Lymphangitis	50 years ago	—
67.....	5	F.	Infantile palsy	No	—
68.....	9	F.	Mastoiditis	No	—
69.....	60	F.	Gastric carcinoma	No	—
70.....	32	M.	Cholecystitis	No	—
71.....	45	M.	Fissure in ano	30 years ago	+
72.....	61	M.	Ruptured eyeball	No	—
73.....	29	M.	Rheumatism	No	—
74.....	25	F.	Salpingitis	5 years ago	+
75.....	37	F.	Dysmenorrhoea	No	—
76.....	8	F.	Lobar Pneumonia	No	—
77.....	1	F.	Tuberculous pneumonia	No	—
77a.....	1	F.	Tuberculous pneumonia	No	—
78.....	19	F.	Miscarriage	No	—
79.....	17	F.	Tuberculous peritonitis	No	—
80.....	9	M.	Mastoiditis	No	—
81.....	20	M.	Inguinal hernia	No	—
82.....	20	M.	Fracture of patella	No	—
83.....	50	M.	Cellulitis of neck	6 years ago	+
84.....	16	F.	Abscess of breast	No	—
85.....	27	F.	Gastritis	No	—
86.....	37	F.	Salpingitis	No	—
87.....	40	M.	Tuberculosis	No	—
87a.....	40	M.	Tuberculosis	No	—
88.....	17	F.	Amenorrhoea	8 years ago?	—
89.....	63	M.	Intestinal nephritis	No	—
90.....	5 mos.	M.	Cleft palate	No	—
91.....	34	M.	Pneumonia	No	—
91a.....	34	M.	Pneumonia	No	—
91b.....	34	M.	Pneumonia	No	—
91c.....	34	M.	Pneumonia	No	—
91A.....	34	M.	Pneumonia	No	—‡
91B.....	34	M.	Pneumonia	No	—‡
92.....	28	M.	Tubercular arthritis	No	—
93.....	29	M.	Colle's and Pott's fracture.....	6 years ago	—
94.....	46	F.	Pyosalpinx	No	—
95.....	22	F.	Endocarditis	No	—
96.....	25	F.	Salpingitis	No	—
97.....	14 mos.	M.	Broncho pneumonia	No	—
98.....	8	M.	Typhoid	No	+
99.....	4	M.	Bronchitis	No	—
100.....	38	M.	Nephritis	No	—
101.....	8	M.	Abscess	No	—
102.....	22	M.	Gunshot wound	No	—
103.....	16 mos.	F.	Mastoiditis	No	—
104.....	58	M.	Gastric carcinoma	No	—
105.....	54	M.	Tuberculous abscess of breast.....	No	—
106.....	28	F.	Pregnancy	No	—
107.....	17	M.	Lymphangitis	No	—
108.....	23	F.	Ventral hernia	No	—
109.....	4	M.	Clubfoot	No	—
110.....	48	M.	Lobar pneumonia	No	—
111.....	23	F.	Gunshot wound of face.....	No	—
112.....	5	F.	Lobar pneumonia	20 years ago	—
113.....	69	M.	Myocarditis, endocarditis	No	—

Remarks—†Revised. *Diag. typhoid. ‡Paratyphoid. **Paratyphoid.

Number	Age	Sex	Clinical diagnosis	Previous history of typhoid	Results
114.....	5	M.	Intestinal toxemia	No	—
115.....	14	M.	Traumatic conjunctivitis	20 years ago	—
116.....	26	F.	Ecstopic gestation	6 years ago	+
117.....	61	M.	Proctitis	40 years ago	—
118.....	58	M.	Carcinoma of stomach	No	—
119.....	60	M.	Carcinoma of tongue	No	—
120.....	52	M.	Potts' fracture	No	—
121.....	19	F.	Hysteria	No	—
122.....	8	F.	Tuberculous adenitis	No	—
123.....	20	F.	Pyosalpinx	No	—
124.....	2	M.	Clubfoot	No	—
125.....	20 mos.	F.	Rachitis	No	+
126.....	25	M.	Abscess of leg	No	—
127.....	3	M.	Abscess of hand	No	—
128.....	26	F.	Salpingitis	No	—
129.....	8½	M.	Intestinal toxemia	No	—
130.....	28	M.	Hemorrhoids	No	—
131.....	7	F.	Bronchitis	No	—
132.....	3 mos.	M.	Cleft palate	No	—
133.....	20	M.	Pneumonia	No	—
133a.....	20	M.	Pneumonia	No	—
134.....	16	M.	Tuberculous osteitis	No	—
135.....	12	F.	Intestinal toxemia	No	—
135a.....	12	F.	Intestinal toxemia	No	—
136.....	13	M.	Malaria	No	—
137.....	47	M.	Hernia	No	—
138.....	26	F.	Salpingitis	No	—
139.....	55	M.	Aneurysm of Aorta	No	—
140.....	24	F.	Pyosalpinx	No	—
141.....	34	M.	Mastoiditis	No	—
142.....	55	M.	Tubercular pneumonia	No	—
143.....	25	M.	Contusion of abdomen	No	—
144.....	21 mos.	F.	Bronchitis	No	—
145.....	23	M.	Sprained ankle	No	—
146.....	48	M.	Contusion of thigh	No	—
147.....	41	M.	Gastroenteritis	No	—
148.....	6	M.	Bronchitis	No	—
149.....	7½	F.	Foreign body in eye.....	No	—
150.....	31	M.	Pulmonary abscess	No	—
151.....	36	F.	Salpingitis	No	—
152.....	46	M.	Deviated septum	No	—
153.....	64	F.	Gall bladder fistula	No	—
154.....	22	F.	Salpingitis	No	—
155.....	31	M.	Bronchitis	No	—
155a.....	31	M.	Bronchitis	No	—
156.....	27	M.	Tuberculous	No	—
157.....	31	M.	Bronchitis	No	—
158.....	7	F.	Mastoiditis	No	—
159.....	4	M.	Gastroenteritis	No	+†
159a.....	4	M.	Gastroenteritis	No	+*
160.....	28	F.	Retroflexion of uterus	No	—
161.....	64	F.	Cholecystitis	40 years ago	—
162.....	49	F.	Otitis media	No	—
163.....	3½	M.	Fracture femur	No	—
164.....	32	F.	Cholecystitis	20 years ago	—
165.....	4	M.	Clubfoot	No	—

Remarks—†Revised. *Diag. typhoid. ‡Paratyphoid. **Paratyphoid.

Number	Age	Sex	Clinical diagnosis	Previous history of typhoid	Results
166.....	9	M.	Bronchitis	No	—
167.....	50	M.	Nephrolithiasis	No	—
168.....	65	M.	Contusion of head and laceration ..	No	—
169.....	28	M.	Hemorrhoid	No	—
170.....	42	M.	Nephrolithiasis	No	—
171.....	25	M.	Shock and laceration	No	—
172.....	17	M.	Leukemia	No	—
173.....	45	F.	Salpingitis	No	—
174.....	47	M.	Cardiac valvular disease	No	—
175.....	29	F.	Endometritis	No	—
176.....	11	M.	Rheumatism	No	—
177.....	32	M.	Typhoid	No	+
177a.....	32	M.	Typhoid	No	+
178.....	63	F.	Gastric carcinoma	No	—
179.....	45	F.	Endometritis	No	—
180.....	25	F.	Pyosalpinx	No	—
181.....	31	F.	Tuberculous salpingitis	No	—
182.....	50	M.	Ruptured spleen	13 years ago	—
183.....	14	F.	Typhoid	No	+
184.....	60	F.	Leg ulcer	20 years ago	—
185.....	13 mos.	M.	Ileocolitis	No	—
186.....	1	F.	Lobar pneumonia	No	—
187.....	20	F.	Typhoid	No	+
188.....	26	F.	Endometritis	5 years ago	+
189.....	27	F.	Laceration cervix & etc.	8 years ago	+
190.....	5	M.	Typhoid	No	+
191.....	18	F.	Typhoid	No	+
192.....	50	M.	Contusion of chest	No	—
193.....	32	M.	Tuberculous fistula in ano	No	—
194.....	55	M.	Chronic gastritis	No	—
195.....	21	M.	Autointoxication	No	—
196.....	23	F.	Pyosalpinx	No	—
197.....	25	F.	Sprained ankle	No	—
198.....	36	F.	Fibroma uteri	No	—
199.....	20	F.	Pyosalpinx	No	—
200.....	17	M.	Puncture wound of foot	No	—
201.....	50	M.	Fracture ribs, hemothorax	No	—
202.....	11	M.	Rachitis kyphosis	No	—
203.....	7	F.	Tuberculous peritonitis	No	—
204.....	5	M.	Genu valgum	No	—
205.....	21	M.	Fractured ribs	No	—
206.....	24	F.	Pulmonary tuberculosis	No	—
207.....	16	M.	Crushed foot	No	—
208.....	35	M.	Asthma	No	—
209.....	28	M.	Rectal abscess	No	—
210.....	4 mos.	M.	Tuberculous meningitis	No	—
211.....	8	F.	Rheumatism	No	—
212.....	25	F.	Salpingitis	No	—
213.....	28	M.	Rheumatism	No	—
214.....	8	F.	Typhoid	No	+
215.....	21	M.	Typhoid	No	+
216.....	26	M.	Gastroenteritis	No	—
217.....	57	F.	Autointoxication	No	—
218.....	30	F.	Lobar pneumonia	No	—
218a.....	30	F.	Lobar pneumonia	No	—
219.....	6	F.	Enlarged tonsils and adenoids.....	No	—

Number	Age	Sex	Clinical diagnosis	Previous history of typhoid	Results
220.....	17	F.	Typhoid	No	+
220a.....	17	F.	Typhoid	No	+
221.....	41	M.	Typhoid	No	—
221a.....	41	M.	Typhoid	No	+
222.....	34	M.	Suppurative appendicitis	No	—
223.....	26	F.	Endometritis	No	—
224.....	25	M.	Typhoid	No	+
224a.....	25	M.	Typhoid	No	+
225.....	32	M.	Burn of body and legs	No	—
226.....	1	F.	Tuberculous enteritis	No	—
227.....	53	M.	Fracture of femur	No	—
228.....	26	M.	Gastroenteritis	No	—
229.....	43	M.	Cerebral thrombosis	No	—
230.....	34	M.	Necrosis of metatarsal	No	—
231.....	4	M.	Gastroenteritis	No	—
232.....	10	M.	Cerebral thrombosis	No	—
232a.....	10	M.	Catarrhal jaundice	No	—
233.....	28	M.	Nephritis	No	—
234.....	15	M.	Lobar pneumonia	No	—
235.....	20	F.	Typhoid	No	?
235a.....	20	F.	Typhoid	No	+
236.....	39	F.	Typhoid	No	+
237.....	46	F.	Typhoid	No	+
238.....	14	M.	Bronchitis	No	—
239.....	18	M.	Intestinal parasites	No	—
240.....	26	M.	Typhoid	No	+
241.....	51	M.	Apoplexy	No	—
242.....	18	M.	Gunshot wound of hand and thigh.....		—
243.....	20	F.	Parenchymatous nephritis	No	—
244.....	2	M.	Ileocolitis	No	—
245.....	50	M.	Carcinoma of stomach	No	—
246.....	19	M.	Bronchitis	No	—
247.....	23	M.	Traumatic cataract	No	—
248.....	23	F.	Endometritis	No	—
249.....	24	M.	Gastroenteritis	No	—
250.....	53	M.	Fracture of left femur—crushed foot.No		—
251.....	32	M.	Burns of body and legs	No	—
252.....	27	M.	Fracture fibula	No	—

The Treatment of Tuberculous Laryngitis.

By R. B. HOMAN, M. D., El Paso, Texas.

Tuberculosis of the larynx is undoubtedly the most frequent complication of pulmonary tuberculosis, and occurs in a much larger percentage of cases than one who has not carefully observed the larynx in tuberculous individuals would suppose. If a careful examination is made in every case it will be found that in from fifty to seventy per cent of those who have tuberculosis of the lungs there is an affection of the larynx also, and this fact should em-

phasize the importance to those who treat tuberculosis of making routine examinations of the throat. This is especially important since early tuberculous laryngitis offers excellent chances of cure, while the far advanced disease is, as a rule, hopeless.

The affection starts as an infiltration, and may continue so for months, or it may break down and become ulcerated in a short time. In the early stage there are often no subjective symptoms, and where there are they consist of a tiring of the throat and hoarseness, which appears toward the close of the day, or after prolonged conversation, and in every case where these symptoms occur repeatedly, whether pulmonary tuberculosis is known to exist or is even suspected, or not, a most careful examination should be made, and if there is still a doubt a diagnostic dose of tuberculin should be administered.

General treatment in this condition does not differ from that for tubercular lesions elsewhere; good food, rest and fresh air are as imperative as they are in the pulmonary type, and especially rest of the voice, for there is so much necessary motion of the parts in deglutition and the conversation that is absolutely unavoidable, that every available opportunity to secure rest should be taken advantage of. It is a well known fact to those who deal with these conditions that it is much easier to get an improvement in the local condition when the general condition of the patient is improving, and good food, rest and fresh air are essential in obtaining that result.

I believe that a high, or moderately high, altitude has proportionately a more beneficial effect in tuberculous laryngitis than it does even in the pulmonary form. This conclusion is reached after observing a more rapid improvement in patients who had tried a good climate, but low altitude, and later changed to a somewhat similar climate in other respects, but where the altitude was higher, and this opinion is concurred in by other men of wider experience. There are perhaps several reasons for this, among which are the extreme dryness of the air in high altitudes, which helps to allay an irritating cough that keeps the part from getting the needed rest, and also rapidly absorbs the increased secretion, which always comes as a fairly early complication, and which keeps the patient "clearing" and expectorating.

It is well known too that the air in high altitudes is less apt

to contain bacteria and, therefore, not so liable to deposit these irritating particles upon an unhealthy mucous membrane.

It is in tuberculosis of the larynx that we get the most satisfactory results from the use of tuberculin, for the reason that the action of the remedy can be accurately controlled by the local reaction produced in the larynx, and the dosage should be governed entirely by the local findings. That amount of tuberculin should be administered which is necessary to cause a slight stimulation of the local process, which will show as a slight hyperemia. The dose should not be repeated until this hyperemia has disappeared, nor should it be increased until this amount fails to produce reaction. The effect of tuberculin here is the same as elsewhere. It increases the amount of protective substances found in the blood through a stimulation of the physiological machinery of immunization. Its stimulating effects also cause a local congestion about the tuberculous foci and thus hastens healing by bringing the protective bodies of the blood to bear upon the tubercle bacilli in greater amounts than is usual in these conditions. This same action has a tendency to prevent the bacilli from spreading to new foci.

Local treatment should be used in every case where there is enough infiltration to make a diagnosis possible, and should be begun as soon as this is made. In this, as in the treatment of all inflammations of mucous membranes, cleanliness is most important. It is my practice to thoroughly cleanse by spraying with some mild alkaline antiseptic solution the mucous membrane, not only of the larynx, but of the nose, naso-pharynx and pharynx as well. More or less catarrh of the membrane in these cavities usually exists in these cases and this treatment benefits that and helps to keep the tissues in a healthy condition, so that they may be able to successfully resist the ravages of any micro-organisms which may come in contact with them. It is always better to have the tissues contiguous to a diseased area in a healthy condition than other wise. It is my experience that the more often this treatment is applied to a tuberculous larynx the better, for cleanliness here is the most important step in the treatment, and in order to make this as thorough as possible I use equal parts of hydrogen dioxid and an alkaline antiseptic solution as a spray, directed right into

the vault of the larynx on the affected area. Where the patient is in an institution, or where the general condition is so good that the exercise necessary to going to an office for treatment is not detrimental, treatment should be given twice a day, and never less than once. Having succeeded in thoroughly cleaning the affected area a mild stimulating and astringent solution is applied with a laryngeal syringe, a sufficient quantity being used to cover well the tissues around. Of these solutions argyrol five to ten per cent and aluminol two to eight per cent have given the best results in my hands—I do not approve of severe treatment in tuberculosis of the larynx. The actual cautery, lactic acid and other cauterizing agents may do good in selected cases and in the hands of some men, but as a routine practice their application is dangerous and they are more likely to do harm than good. If they were not harmful in any other way they are painful and in this way not only actually interfere with swallowing food for hours after their application, but discourage the patient, often causing them to refuse further treatment. The mild treatment requires a longer time to produce results, but in cases which are not hopeless to begin with the patience required is rewarded by a very satisfactory improvement in the condition, and by its use conditions are never made worse than they were. After ulceration has taken place weak solutions of formalin in water are beneficial. This has been used very extensively by Drs. Gallagher, of Denver, E. S. Bullock, of Silver City, and others. The application is somewhat painful, but the pain lasts but a short while, and if the solution used to begin with is as weak as one drop of a forty percent solution of formalin to an ounce of water the pain is very slight, and as the tissues become accustomed to it the strength can be gradually increased until it reaches a two per cent solution. Formalin not only acts as a germicide and a stimulant here but it seems to harden the tissues so that their resistive power is increased, the ulcer becomes less painful—so that the patient can take nourishment to better advantage. The results of this treatment in my hands have been very satisfactory.

Sunlight has a beneficial effect, when it can be reflected directly into the throat. This can be accomplished by the use of a set of mirrors; its effect is both mildly stimulative and germicidal.

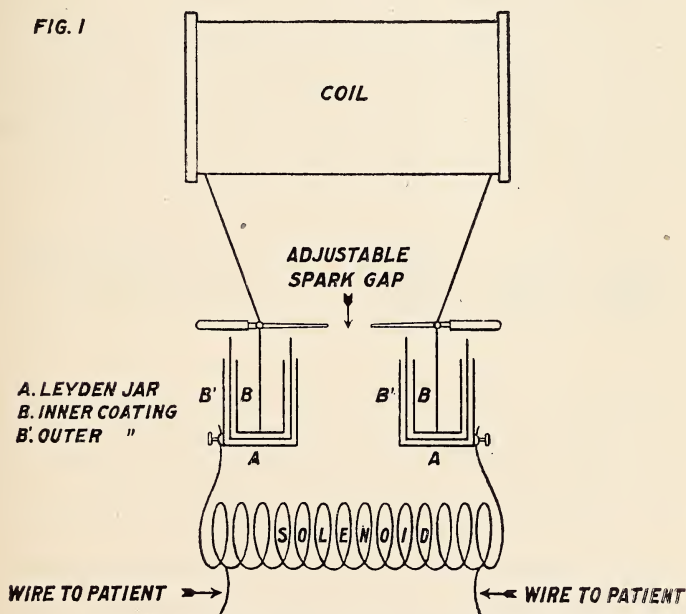
Let me repeat that complete rest of the vocal chords, which means that the patient must refrain from talking as nearly as practical, and not be allowed to do unnecessary "clearing" and coughing, cannot be too strongly impressed upon the patient.

Physiological Action of High Frequency Currents.*

By ADOLPH HENRIQUES, M. D., New Orleans.

High frequency electric currents were first brought into prominence in 1890 by Tesla, of this country. Their medical application was largely due to d'Arsonval, France, in 1891. Since that time

FIG. 1



a large number of investigators have occupied themselves with the various phases of this interesting form of electricity, but practically all the advances along this line have been due to the efforts of the French scientists.

The apparatus required to produce High Frequency currents is comparatively simple. The principle is to charge condensers, or Leyden jars, whose outer coatings are connected by a helix of wire, or solenoid. This solenoid consists of about 18 or 20 turns

*Read before Orleans Parish Medical Society, March 8, 1909.

of thick copper wire. The inner coatings of the condensers or jars terminate in sliding rods, whose distance apart can be adjusted. The condensers can be charged from a static machine, from an induction coil of large size, or from the alternating current supply mains through a high potential transformer. The output of current is least with the static machine. In using an induction coil, one with a sparking distance of at least ten inches is necessary to obtain satisfactory results. I have employed both static machines as well as coils as a source of current, and find the coil more satisfactory in every way. (See Figure 1.)

The condensers, or Leyden jars, when charged to a sufficient potential, discharge in an oscillatory manner between the rods, and this discharge occurs with each interruption of the primary current in the coil. By induction, corresponding oscillations occur in the outer coatings of the jars, and take place only in the solenoid which connects them. The electricity oscillates constantly from one coating to the other, but the range of the oscillations decreases rapidly to zero. (See Figure 2.)

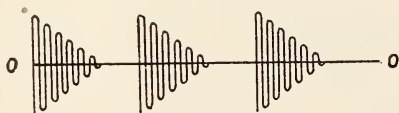


FIG. 2. SHOWING RANGE OF OSCILLATIONS.

The electricity is in some way ballotted a certain number of times from one coating to another up to the point that the charge communicated to the jars is totally dissipated, and each spark, instead of being one as our eye and ear gain the impression, is in reality composed of a series of sparks succeeding one another with an enormous rapidity. The period of duration of an electric oscillation is about one hundred thousandth of a second, and may be much shorter still.

When the waves of electricity succeed one another so rapidly that the oscillations reach the number of 100,000 and above, per second, we then have High Frequency Currents.

General applications are affected by:

1. Auto-conduction. Here the patient is placed within a large solenoid without contact with it.

2. Auto-condensation. This method is now most in vogue.

The patient lies upon a couch composed of a thick insulating medium, and holds a metallic handle, or, in its stead, is in contact with a metallic plate. Beneath the insulating mattress is a sheet of metal extending the length of the couch. It represents one coating of a Leyden jar, the mattress represents the glass, and the patient represents the other coating of the jar. The third method of general application is:

3. By direct application. Two metallic electrodes are connected directly to patient, one from each end of the solenoid.

EFFECTS OF GENERAL APPLICATIONS.—When one applies the current directly, or by auto-condensation, one is struck by the fact that, in spite of the very high voltage and great frequency of the currents which traverse the body, the neuro-muscular and neuro-sensitive systems do not respond to their excitation; in a word, the muscles do not contract and the subject feels nothing. The reason why the motor and sensory systems do not respond to the currents of high frequency has been explained by d'Arsonval, and is to-day generally accepted. He proved that the motor and sensory nerves are so organized as to respond only to vibrations of a certain frequency. If the muscle receives 20 to 30 excitations a second, it rests in a state of permanent contraction—is tetanized. The muscle being tetanized, if the number of waves be further increased, the phenomena of neuro-muscular excitement increases equally till the maximum, which corresponds to about 5,000 vibrations per second is reached. From this moment the phenomena of excitation decrease as the number of vibrations increase per second. When the number of excitations per second reaches a height as that which distinguishes high frequency currents, all neuro-muscular reaction is arrested. By analogy, we know the optic nerve does not respond but to excitations of which the frequency is below 728,000,000,000 per second (violet) and superior to 497,000,000,000 (red rays). Likewise, the nerve of hearing responds only to vibrations comprised between 32,000 and 40,000, thereabout, per second. Likewise, the nerves of general sensibility and the motor nerves respond only to excitations of which the frequency is inferior to about 10,000 per second.

ANALGESIC EFFECTS OF HIGH FREQUENCY CURRENTS.—Since the beginning of the investigations of high frequency currents, it has been noted that these currents seems to exercise a particular action upon the neuro-muscular system—an action designated by Brown-Sequard as “inhibition.” Under the electrodes the tissues become rapidly less excitable to other stimulation. This diminution of excitability may go on up to anesthesia. The sensibility of the skin to galvanism and faradization is greatly lessened after the passage of high frequency currents.

DEEP EFFECTS OF HIGH FREQUENCY CURRENTS.—As indicative of the deep effects of high frequency currents upon the body, we will consider their action upon, first, respiratory exchanges; second, urinary secretions; third, *thermogenesis*. 1. Upon respiration, high frequency causes an increased absorption of oxygen and an increased elimination of carbon dioxide. Upon d’Arsonval himself the elimination of carbon dioxide passed from 17 to 37 litres in one hour under the influence of this current. The activity of the reduction of oxyhemoglobin, as examined by Tripet and Guillaume, shows an increase.

2. Urinary elimination is modified in a sensible manner. D’Arsonval, Charrin, Merton, Apostoli and Berlioz, Desnoyez, Maitre and Rouviere, have shown an increase in the quantity of urine secreted, an increase in the elimination of urea, uric acid, of total nitrogen, of phosphates, sulphates, and chlorides. There is also an increase in the toxicity of the urinary molecule, as demonstrated by the methods of Bouchard.

3. Thermogenesis. D’Arsonval was the first to draw attention to the fact that the quantity of heat disengaged by the subject under treatment attains nearly double the normal value. His conclusions were confirmed by Bordier and Lecomte. Bonniot also arrives at the same results. Wertheim Salomonson, of Holland; Sommerville, of England, and Zimmern and Turchini, of France, noted an increase of the temperature of the body as shown by surface, buccal and rectal temperature findings. There was at the same time general dilatation of the peripheral vessels. This rise in temperature varies from 0.2 deg. to 0.4 deg. Cent., and gently subsides at the termination of the application. Upon the dog, a little after the application begins, the frequency of the respiratory movements passes rapidly from 10 per minute to 24, 30, 50 per

minute. It seems that the dog tries to struggle against the cause of the heat by his habitual means of heat regulation, viz., rapid breathing. In man under the influence of high frequency currents, there is an increase of body temperature, and the organism puts into play its means of defense against moderate elevations of temperature, namely, peripheral dilatation of blood vessels. Wertheim, Salomonson, also Zimmern and Turchini, have attempted to explain the increase of heat in the body upon a purely physical basis—*i. e.*, the calorific action of the current. Salomonson adopts this method of reasoning because, as he states, it is easier to explain than a physiologic cause.

These currents may be applied, for local effect, in several ways. Usually one end of the solenoid is connected with the earth. The other end is brought near, or into contact with, a resonator. This resonator consists of a number of spirals of fine wire, and its effect is to raise the potential or voltage of the current. The resonator was introduced by Oudin in 1892, and all modifications of the resonator are based on this principle.

Local applications are made, first, by sparking, second, by effluves or waves; third, by condenser electrodes; fourth, by direct contact with (a) metal electrodes, or (b) variously shaped glass vacuum tubes. In all these local applications, one end of the conducting wire is attached to the farthest extremity of the resonator, the other to the instrument for treatment.

LOCAL EFFECTS.—The end of the resonator is connected with a metallic electrode, usually pointed. The point is held at some distance from the skin, and a flow of sparks strikes the region nearest. The effects of this mode of application have been best described by Dr. Keating-Hart, of Marseilles, France. If we project upon the living healthy skin long sparks of high frequency for some seconds, one notes the appearance of an intense ischemia of the skin, limited to the points touched, forming islands in the middle of the normal surrounding tissue. Left to themselves, these points regain gently their color, to become afterwards of a bright reddish hue. If prolonged, the sparking maintains for a short time the paleness of the point struck, then, little by little, the points struck thicken and become edematous; then a blister is produced and finally a slough is formed.

If sparking occurs on the surface of a wound, there is a dis-

charge of serum, which is not always immediate, but which in general manifests itself very quickly. The chemical composition of the liquid so poured out is that of the blood serum, holding in suspense some hematin, more or less altered, and a great number of leucocytes. The flow may be so great as to require the renewal of dressings twice daily. The duration of the serum in a pure state is from two to four days; then it thickens, and becomes purulent during the elimination of the slough, if there is any. The flow of serum slackens during the period of cicatrization.

A spark of several millimeers is rapidly anesthetic; sparking at a distance of about two to three centimetres is very painful; above that limit anesthesia is absolutely necessary. It is by the intensity of the reaction, not by its quality, that a tissue so treated differs from any other tissue submitted to any of the irritants, caustic, physical or chemical known.

2. Effects of effluves or waves. The effluve differs from the method of sparking in that the intensity of the action is much less marked. Instead of a single pointed instrument, one consisting of an aigrette or a number of points is used. The current is diminished in intensity by leaving several points at once, instead of being concentrated at one point only. The current does not spark, but waves of electricity strike the skin. First there is concentration of the blood vessel; immediately following, the skin becomes hyperemic and local blood pressure is lowered. The skin and blood pressure regain their normal tone, usually in several hours, after alternating dilatations and contractions of the blood vessels.

3. Effects of condenser electrodes. These electrodes are usually of glass, within which is a cylinder of metal acting as the internal coating of a Leyden jar. The skin represents the other coating of the jar. By induction, small sparks strike the skin, producing an effect somewhat similar to that of the effluve. They have the advantage of being applied to the skin with more precision than the effluve.

4. Direct contact with (a) metal electrodes or (b) variously shaped glass vacuum tubes. These are made of various shapes and are of decided advantage in treating the accessible cavities of the body. The metal electrodes conduct the current to the part treated. The vacuum tubes act by induction. They act similarly to but less

powerfully than the effluve. They are analgesic. They cause vascular contraction, which is shortly followed by a hyperemia of the part to which applied.

That the local applications have indirectly a general influence as well is shown by holding the finger or a metallic object near the subject. Small sparks may be seen and felt as they leave the skin of the patient. This takes place also through the shoes and clothing.

CONCLUSIONS: From the study of this interesting subject and from my own observations, I have reached the following conclusions:

1. High frequency currents, by reason of their great frequency and high voltage, effect the rapid charging and discharging of the cells of the body with electricity.
2. They act without appreciable influence on the motor and sensory nervous system.
3. Their effect is an increase of the metabolic activity of the body cells in general, as evidenced by the increased oxygen absorbed, carbon dioxide eliminated, also as shown by urinary changes and by thermogenesis.
4. Their action is accompanied by an increase of heat production and of heat elimination nearly double the normal quantities.
5. The heat elimination is attended by a dilatation of the superficial capillaries throughout the body.

Local high frequency currents are indicated in certain dermatological and superficial affections.

General applications of high frequency currents are indicated in vasomotor disturbances, whether general or localized, and in those diseases caused by defective metabolism, whether of gland or muscle.

BIBLIOGRAPHY.

- KEATING-HART.—*Sur l'Action de l'Étincelle sur les Tissus.*
 LAQUERRIERE ET DELHERM.—*Sur l'Action des Courants de Haute Fréquence chez les Hypertendus.*
 ZIMMERN ET TURCHINI.—*Les Effets Thermiques des Courants de Haute Fréquence.*
 WERTHEIM-SALOMONSON.—*Le Mode d'Action des Courants de Haute Fréquence.*
 BONNEFOY.—*L'Arthritisme et son Traitement.*
 WILLIAMS.—*High Frequency Currents.*
 H. LEWIS JONES.—*Medical Electricity.*
 ALLEN.—*Radiotherapy, Phototherapy, Radium and High Frequency Currents.*
 GUILLEMINOT.—*Electricité Médicale.*
 BORDIER.—*Précis d'Electro-Thérapie.*
 ALBERT-WEIL.—*Manuel d'Electrothérapie et d'Electrodiagnostic.*
 ZIMMERN.—*Elements d'Electrothérapie Clinique.*
Archives Roentgen Rays and Allied Phenomena, 1906-7-8.
Proceedings Second International Congress of Pysiotherapy, Rome, 1907.
Archives d'Electricité Médicale, 1906-7-8.

Report of a Case of Sialolithiasis.

By A. JACOBY, M. D., New Orleans.

As this condition seems to be a rare one and there have been a few reports of cases during the past year, I felt it incumbent upon me to make remarks upon a case that came under my observation.

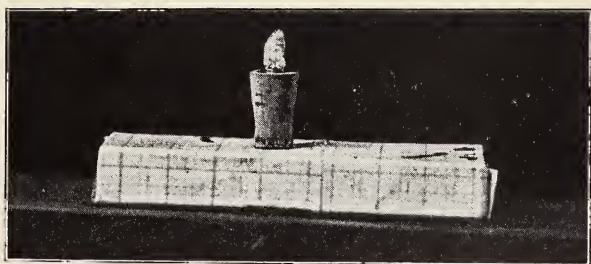
The condition seems to be due to a change in the constitution of the salivary secretions, which tends to precipitate the carbonates and phosphates ordinarily held in solution. The stone may be long, spindle-shaped, or more nearly round, the size of a pea or bean, less frequently a walnut, or sometimes still larger. The surface is uneven more often than smooth. Out of 37 cases reported by Czygan, 26 were in Wharton's duct, 4 in Steno's, 5 in Ricini's, and 1 each in parotid and Bartholini's glands. Males seem to be affected more than females.

N. L., presented himself at my clinic about one year ago for an inflammation in the right parotid region. Examination revealed tenderness on pressure just behind the angle of the right inferior maxilla. There was an acute inflammatory process, with marked swelling of the parotid gland and neighboring structures. Pressure on the gland forced into the mouth a thick, viscid, pus-looking material. Patient complained of the increase of pain in that region, as well as the enlargement of it, upon eating. He stated that he felt relieved only when this pus-looking material escaped into the mouth.

A diagnosis of obstruction in Steno's duct was made and as it was impossible to pass a probe into the duct, advised immediate operative intervention. Under ether anesthesia, an incision was made over the most fluctuating part of the tumor, as we were unable to pass a probe into the duct, even though the patient was anesthetized. The opening released a thick, pus fluid, with considerable debris. A probe was then passed into the opening which had been made and evidence of a stone determined. The stone was removed with tissue forceps and found to be rough in character and spindle-shaped.

The cavity was swabbed with iodine and packed with gauze. Recovery was uneventful. After some weeks, the opening closed entirely, and the patient had no further discomfort upon eating.

New Orleans Medical and Surgical Journal,
July, 1909.



DR. JACOBY'S PAPER.

I have had occasion to see him since and he tells me that, outside of a slight swelling in that region at times, only after eating, he has little cause to complain. The scar is barely perceptible.

Just a few words in conclusion regarding the treatment of this condition :

The incision should be made inside the mouth, if practicable, to avoid scarring the face. This did not seem advisable in this case, however, owing to the fluctuation and extreme swelling on the outer surface. The stone may be located in the gland proper or in the duct. In this case, it seemed to be in the duct. If possible, the duct should be made patulous by frequent dilatation and, if a stone be determined, it may be possible to remove it through the opening in the mouth without an incision.

I should think also, that it may be possible to crush a stone of this kind and wash out the debris. Unfortunately, many of these cases do not present themselves for attention until infection has occurred and pus has been present for some time. It therefore behooves us to take note of swellings in the region of the salivary glands and to determine what may be the cause of the obstruction to the outflow of the secretion.

I beg to acknowledge my indebtedness to Dr. W. M. Perkins for the privilege of operating on this case and for valuable assistance.

Uretero-Vaginal Fistula, a Sequel of Panhysterectomy. Wertheim's Operation for Carcinoma of Uterus. Cured by Uretero-Cystostomy.

By Dr. W. KOHLMANN, New Orleans.

The abdominal operations for the removal of the carcinomatous uterus are the source of great danger to the urinary apparatus. The more extensive the operation the greater the danger of injury. You may say that the number and size of the injuries are proof of the extent of the operation, of course excluding the accidental injuries.

The more of the pelvic intercellular tissue removed, the more the bladder and ureters are loosened from their vascular and nerve connections the greater will be the disturbance of their walls and functions.

Uretero-vaginal fistulas have been observed by all who perform the extended excision of the uterus, as described by Wertheim and Bumm.

Wertheim reports after 158 operations 10 fistulas; Weibel of Wertheim's clinic, 400 cases with 24 fistulas, about 6%. Franz saw in 145 cases 7 fistulas.

The main cause of these fistulas, which are due to partial necrosis of the ureteral walls, are drainage of the abdominal cavity and superficial injuries of the walls of the ureter.

Bumm and Stoekel especially have drawn attention to the danger of drainage of the field of operation with gauze.

Doederlein considers it dangerous to draw the ureter from the underlying tissue and advises to perform the operation without lifting the ureter from its bed. Franz considers the possibility very doubtful, to perform the operation in a satisfactory way without lifting the ureter entirely out of its bed, as there is more intercellular tissue below than above the ureter. He only saw 7 fistulas after 145 operations, about the same percentage as Wertheim and others, showing that lifting the ureter alone cannot be blamed entirely for the disagreeable complication.

Most fistulas, due to necrosis, occur from the 7th to 18th day. The majority of these heal spontaneously in from 6 weeks to 3 months. Jonas advises on that account to postpone operative procedure for closing the fistula at least 6 weeks. Wertheim saw good results from cauterization with tincture of iodine and solution of nitrate of silver. The operation must not be postponed too long, as infection of the higher passages may set in, which would necessitate the extirpation of the kidney. In the cases of Wertheim up to 1903 nephrectomy was performed 7 times and was rather the operation of choice on account of the unsatisfactory results of uretero-cystostomy and the complicating pyelitis, which set in rather early.

The improved technic in the last few years renders the implantation of the ureter in the bladder safer in regard to recovery and satisfactory function.

To-day the abdominal uretero-cystostomy is without doubt to be considered the operation of choice.

During the last year I have performed 5 Wertheim operations; one case developed an ureteral fistula. The case was by far the most favorable for a successful operation. The recovery of the

patient was perfect, there was no shock, no elevation of temperature or pulse, and no disturbance of the bowels following the operation.

On the 13th day the nurse reported that the patient was continually wet, though from time to time she was able to pass urine. Examination showed a ureteral fistula on the right side.

I decided in this case on a rather early operation, in the 6th week, mainly on account of the nervous condition of the patient, who worried greatly that she was getting weaker on account of the discharge and was anxious to get relief.

History: Mrs. V. T. Age 38. Married at 19. Eleven children, the last one year ago. Two months after confinement she noticed a bloody discharge which has persisted continuously since.

Microscopic examination of a piece of cervix showed epithelioma. October 7 abdominal panhysterectomy was done. After an uneventful recovery, the patient having been up in a chair two days previous, an involuntary discharge of urine was noticed on October 20.

November 17 the abdomen was reopened, some infiltration of right pelvic floor was found, where the ureter was situated. After splitting the peritoneum a little higher up the ureter was found and dissected out with some difficulty, and retracted considerably. The peritoneum covering the bladder was divided, the bladder loosened up toward the right side of the pelvis and fastened there about one inch below the brim with about four sutures. A small opening was then made in the bladder, the ureter put in the opening and retained in position by two silk sutures. A few more silk sutures fastened the anterior wall of the bladder to the pelvic peritoneum. A small drain was introduced in the fear of leakage. This drain was removed on the third day.

The patient made an early recovery and was discharged from the hospital on December 5.

Acute Diverticulitis of the Large Intestine; Report of a Case.

By C. JEFF MILLER, M. D., New Orleans.

The following case history is of interest from a diagnostic standpoint and also because the symptoms presented were typical of a surgical condition seldom encountered.

The patient was a farmer, 38 years of age, who was first seen in March, 1908, ten days after the subsidence of an acute attack of suppurative appendicitis. The attack had been typical and as soon as he was able to travel he was brought by his physician for an operation. He was tall, and extremely thin, but gave a history of an active life and good health with the exception of habitual constipation. There had been previous mild attacks before this last severe one. Operation revealed a circumscribed abscess containing about 5 ounces of pus. Owing to adhesion no attempt was made to identify and remove the appendix. A flank drain was inserted and a small cigarette drain placed in the lower end of the incision. With the exception of a slight stitch infection his recovery was uneventful. He resumed work, gained weight and enjoyed better health than for years. Constipation continued although the bowel function was more satisfactory.

Three months after returning home he had some sudden sharp pain in the left lower quadrant of the abdomen similar to that which he had previously experienced on the right side. He was not confined to bed. One month later (six months after the above mentioned operation), he returned, accompanied by his physician, and stated that two weeks before coming while at work he was suddenly seized with violent pain about the umbilicus which shifted later to the left lower quadrant of the cavity and corresponded exactly to his appendicitis attack, with the exception that nausea and vomiting were absent. He took a purgative, but was not confined to bed. Three days later a mass suddenly appeared in the left side and his temperature rose to 105°. The temperature remained high for two days then gradually declined, but did not register normal for ten days.

Palpation revealed a mass about the size of a medium orange, quite sensitive and attached to the abdominal wall under the left semilunar line about two inches below the umbilicus. The abdomen was opened, and after the omental adhesions were released the mass was found to be attached to the free border of the colon just above the beginning of the sigmoid. It was oblong in shape, about five centimeters in length, two centimeters in its transverse diameter, and when removed contained foul smelling pus and a small concretion. The area of bowel involved was not large but showed con-

siderable infiltration and the mesentery for a short distance was congested and somewhat rigid.

The mass was removed after applying a clamp which included an area of the intestinal wall. A running stitch of chromicized gut was placed over the jaws of the clamp before the bowel was released, after which linen sutures were inserted as in ordinary intestinal closures. A stab wound drain was placed in the lumbar **region and the original incision closed. Stitch suppuration occurred**, but he rapidly improved and returned home in three weeks.

Unfortunately no careful pathological study of the mass was made so it is impossible to state the exact type of diverticulum, but the clinical details and operative findings are sufficiently conclusive to warrant the diagnosis of acquired diverticulitis of the colon.

Until recently little was known of the exact pathology of diverticula. Many instances were recorded, but there had been no detailed study to determine the proportion of acquired, or congenital cases and the bearing their origin had upon the clinical signs, or treatment. A sufficient number had been collected to show that they belonged to a distinct class, clinically.

Wilson's study of the specimens gathered in Mayo's clinic is exceedingly interesting and complete.

Four or five cases were of the small, multiple, false variety, all were simple hernia of the sigmoid wall passing through the circular coat at points where its fibres were deficient. It was impossible to determine accurately whether the deficiency of the muscularis was congenital, or the result of atrophy from the pressure of fecaliths, or constipation. The large inflammatory deposits about the diverticula he considered due to chronic leakage and advised reserving the term diverticulitis only for cases in which acute inflammation occurred in the mucosa within the diverticula, and peridiverticulitis for chronic inflammations of the subserosa around the diverticula. The latter type causes marked reduction of the lumen of the bowel with chronic obstruction, and has no doubt furnished the cases often classed clinically as malignant disease. Histologically they are classed as true and false, the former containing all the coats of the intestine, the latter being hernial protrusions of the inner coats through the muscular coats.

The frequency of acquired diverticulitis is a point of interest. Mayo quite correctly suggests that all cases do not go on to the

production of serious symptoms, but, may present a definite tumefaction and severe pain which rapidly improves after thorough evacuation of the bowels, although tenderness may remain for some time.

It is also possible that the cases which have been classed as mesosigmoiditis would show, if carefully examined, diverticula between the mesentery folds.

The reported cases have presented with remarkable constancy certain common features. It is an affection of old age. The majority are over fifty. Murphy mentions 8 cases all of which were advanced in years. Mayo's were over 45. The majority are males, nearly all are inclined to obesity and give a history of previous robust health. Hansemann has mentioned its occurrence in extremely thin people. It might have been a contributing factor in the above instance.

The location of the affection is also characteristic. It is almost always found in the descending colon, between the splenic flexure and the rectum. Gardiner and Sampson found no case reported in which symptoms were caused by diverticula in the small bowel.

The onset is usually sudden; inflammatory symptoms rapidly develop and the absence of vomiting seems to be a common feature unless the attack is severe.

Griffin states that a clinical diagnosis cannot be positively made.

Left sided pain, general at first, later localized to the iliac fossa, is strongly suggestive. It is easy to confound such a trouble with carcinoma of the large bowel, since in both affections obstruction and a palpable tumor are common.

Carcinoma may develop more gradually, but, too frequently is only recognized when acute obstruction arises. The occurrence of blood mixed with the stools is an important sign in favor of carcinoma. Only one of Mayo's cases was correctly diagnosed. Resection of the bowel was done in all and in each the gross appearance in situ was that of carcinoma. It required a pathological examination to show that malignancy was not present.

Termination. Beer has furnished the completest study of the earlier reports and from 18 cases classified them according to pathological reports, and operation, or autopsy findings as follows:

1st. Diverticula which produced stenosis of the sigmoid or upper rectum.

In this list he placed 6 cases, all of which suggested a diagnosis of cancer, and in which the true condition could not be known without a detailed examination;

2nd. Diverticula which lead to perforation into the peritoneum. Four such cases showed the necessity of carefully examining the sigmoid in perforative peritonitis;

3rd. Diverticula that lead to abscesses or localized peritonitis in the left iliac fossa, chiefly found in old people;

4th. Diverticula leading to perforation into the bladder or dense adhesion to the bladder; a class very important from a prognostic standpoint, since such cases usually suggest inoperable carcinomatous changes;

5th. Cases which seemed to show some causative relation between diverticula, mesenteritis, and volvulus of the sigmoid;

6th. Instances of appendicitis in which diverticula had been found in that organ;

7th. Those in which carcinoma had apparently developed in false diverticula.

We must conclude from Beer's classification that there may be numerous complications and many sided clinical manifestations. In fact, fistulous tracts from the bowel communicating with other organs may not have been diverticula but it is not always possible to make a differentiation.

TREATMENT: The secondary pathological changes oftener require interference than the primary lesion. There may be only an indication to establish free drainage of suppurative areas; it may be necessary to establish an artificial anus if acute obstruction develops; resection of the bowel in instances of subacute, or chronic thickening with partial obstruction, or the closure of communications between the various organs. Mayo advises primary resection of the affected part of the bowel before abscess and fistula supervene to render the patients prolonged invalids if a tumor is present and does not show a tendency to disappear under careful dieting and emptying of the bowels.

In all of Mayo's cases the disease was limited to 4 to 8 inches of the gut and all who recovered from the operation remained in good health.

BIBLIOGRAPHY.

W. J. MAYO.—Acquired Diverticulitis of the Large Intestine, *Surg. Gynec. & Obst.*, July, 1907.

H. Z. GRIFFIN.—The Clinical Course of Acquired Diverticulitis of the Larger Intestines. *Surg. Gynec. & Obst.*, 1907.

BEER—Some Pathological and Clinical Aspects of Acquired Diverticulæ of the Intestines. *American Journ. of the Med. Sciences*, Vol. CXXVIII.

COEDINIER & SAMPSON.—Diverticulitis Causing Intestinal Obstruction. *Journ. of the American Medical Association*, 1906.

Some Cases of Typhoid Fever, Running an Intermittent Temperature.

By Drs. ELLIOTT & ADA KIBLINGER, Alexandria, La.

In looking over the various text-books on practice, we note that while all the authorities admit the fact that an infection with Eberth's bacillus can run a course with a subnormal or intermittent Febrile Chart, yet we were struck by the fact that even in the Monographs on the subject, we failed to find a single chart where throughout the entire course of the fever the temperature daily went to or below normal, hence we report the following cases, which have occurred in our practice:

Case First: Mrs. U. O., *aet* 45 years, 8-para, family history negative. Consulted us for a fever. On examination, we found she had just returned from Oakdale, La., where she had been nursing her son and his family through a house epidemic of typhoid. She said the doctors called it "Slow Fever." She gave history of headache, epistaxis, languor, and her temperature was 39°C; that night we saw her and found her temperature normal. Suspecting typhoid, we placed her on liquid diet and salol, after giving a purgative.

Later on during the course of her illness, we detected rose spots and an enlarged spleen. At no time did she have chills, sweats or herpes labialis. On the twenty-third day of the fever she developed tympanitis and diarrhea. After five weeks the fever ran its course and she was considered convalescent, but warned not to eat any solid food, until we told her she could. We discontinued our visits, but advised her, we would return in a few days to instruct her what she could eat. Two days after that, the family had some hogs killed, and she insisted on eating some fresh pork and rice. Soon after partaking of it, we were sent for and we found our patient, who had been getting along so well, in a state of collapse. Her abdomen was awfully tympanitic, pulse rapid and in a few hours she died. The cause of death in this case was evidently perforation.

From the above case, there developed a house epidemic, which also before it finished involved some of the neighbors' families, most of which ran an intermittent temperature curve, but three ran part of the time a remittent type of fever, which we will refer to later.

Case Two: P. O., male, *aet.* 25 years, white, son of case No. 1, developed a case of fever, said to have been caught in nursing his mother. He persisted in keeping up and about his affairs for the first week after fever was discovered. Besides running throughout the entire course of the disease, an intermittent fever, the history of the case is as follows:

Rose spots discovered on tenth day, every evening his temperature ran very high, 40 to 41C. On the forty-seventh day of the illness, the patient had repeated hemorrhages and on the following day he died.

Case Three: E. O., *aet.* 4 years, male, son of Case No. 2. Had intermittent fever and ran an uneventful course lasting thirty-three days.

Case Four: Male, *aet.* 2 years, son of Case No. 2. Had an intermittent fever, which lasted twenty-three days, and which did not respond to large doses of quinin.

Case Five: Mrs. P. O., wife of Case No. 2. Had an intermittent fever, which lasted seven weeks. This patient had intestinal hemorrhages.

Case Six: Brother of Case No. 2, was ill one hundred and twenty days with an intermittent fever, which was a classical case of typhoid, save the intermittent form of fever.

Case Seven: S. O., female, 12 years, daughter of Case No. 1. Was ill with an intermittent fever which lasted nine weeks.

Case Eight: H. B., male, *aet.* 47 years. For the first three weeks had an intermittent fever, at which time pneumonia developed after which the fever remitted.

Case Nine: Mrs. H. B., wife of Case No. 8. Had intermittent fever for three weeks followed by a two weeks' remittent fever. This patient aborted on twenty-first day of illness, and as it remained incomplete abortion for eleven days, we presume the superimposed infection accounts for the change of type of fever, for after a currettment, the temperature resumed an intermittent type.

Case Ten: Son of H. B., *aet.* 10 years. Had an intermittent fever, which lasted one hundred days.

Case Eleven: Son of Case No. 8, *aet.* 14 years. Had an intermittent fever for ninety days.

Case Twelve: U. O., *aet.* 40 years, husband of Case No. 1. Had an intermittent fever, which lasted one hundred and twenty-four days. While in none of the above cases did we attempt bacteriological diagnosis, yet clinically the picture was classical and except there be a new fever here in the South, which many believe, as evidenced by such diagnosis as typho-malaria, slow fever, continued fever, etc., these were undoubtedly typhoid.

In every case the disease began insiduously with headache, epistaxis, languor and gradually increasing fever. In three of the cases, intestinal hemorrhage occurred, viz: Case No. 2, Case No. 5 and No. 6. This report is made because it appears the cases are unique; we believe the diagnosis of typhoid was correct beyond any reasonable doubt.

Since writing the above, we have had two cases of typhoid fever, which ran an intermittent course and in which a blood examination was made by Dr. Archinard, of New Orleans, who reported Widal reaction positive for typhoid.

In one of the above cases quinin was used vehemently. These cases occurred in a different town and have no connection with the first twelve cases, but are given as an evidence of the existence of an intermittent typhoid fever.

Report of Two Cases of Ludwig's Angina with Bacteriological Findings in One.

By ESPY M. WILLIAMS, M. D.,

Surgeon to St. Mary's Hospital, Patterson, La.

The cases of Angina Ludovici collected and reported up to the present time number 109. Of these 104 were collected and formed the basis of an exhaustive paper by T. Turner Thomas (*Annals of Surgery*, Vol. 47, p. 161); and a report of 5 cases was made by Jno. W. Price, Jr. (*Annals of Surgery*, Vol. 48, p. 649).

Considering the great seriousness of, and the high mortality connected with this type of neck infection, together with the prob-

ability that many cases go unrecognized and so suffer from want of proper measures of relief, it is deemed appropriate that the two following cases be added to those previously summed up.

Case 1: W. D., male, white, aged 11 years, had always been in good health, but of frail make-up. Two days prior to consultation he had had a slight chill succeeded by fever, and had complained within a few hours afterward of soreness in the right side of the "neck." Slight swelling under the jaw began some six or seven hours after onset of pain, etc., and the temperature continued high.

On examination there is a very perceptible swelling in the right submaxillary region. The tumefaction is hard to the touch, quite tender, non-fluctuating; there is no reddening of the skin. The swelling extends from the angle of the jaw posteriorly to the symphysis anteriorly, and downward to about the level of the lower border of the larynx. It is difficult for the patient to open his mouth, separation of the jaws to the extent of about $\frac{3}{4}$ of an inch only being effected. The floor of the mouth is seen to be elevated to the level of the teeth, and the tongue presses snugly against the hard palate. The mucosa of the floor of mouth is covered by a firm, white false membrane, which readily peels off without bleeding. There is no cyanosis, but some slight difficulty in breathing. Temperature $102\frac{4}{5}$; pulse 130. The gravity of the condition being immediately recognized, intervention was promptly made. Under cocain analgesia an incision was made parallel to and $\frac{1}{2}$ inch below the lower jaw, extending from angle to symphysis, and the floor of the mouth entered by blunt dissection with an artery forceps and the finger. About 6 drams of very foul-smelling, thin, grayish pus was evacuated, containing many shreds of sloughed connective tissue. The wound was not irrigated, and was left open, with tube and gauze drainage. Recovery was uneventful.

Microscopic examination of a smear of the pus showed streptococci in large numbers, associated with bacteria closely resembling the colon bacillus, the latter probably accounting for the distinctly fecal odor of the pus.

The source of infection in this case was presumed to be a carious second molar tooth, right.

Case 2: White male, Italian, aged 14 years. Patient of Dr. A. S. King, Morgan City. Had been sick for two days previous to

admission to hospital. Onset with slight temperature, followed by pain in the clavicular region on the left side. Swelling of the neck came on about 24 hours after onset of symptoms. Examination reveals a dense, non-fluctuating, slightly tender mass in the left submaxillary region, occupying the entire triangle. The floor of the mouth is slightly elevated, and attempts to open the mouth are fairly successful but cause considerable pain. There is no dyspnea. Pulse 112, temperature 100 1/2. An incision, under ether anaesthesia, was made parallel to and below the lower jaw and the floor of the mouth thoroughly dissected into. No pus was present, only a very small quantity of thin serum being evacuated. The wound was packed with sterile gauze. The patient was referred back to Dr. King two days after operation, with normal pulse and temperature, the swelling having almost entirely disappeared. There was at this time a small quantity of thin pus in the wound.

Unfortunately no bacteriological examination was made in this case. The probable atrium of infection could not be determined.

In Case 1, while I am not prepared to state that there was undoubted colon infection, owing to the difficulty in identification of this bacillus, it is nevertheless my belief that such was the case. The organism resembled the colon bacillus as nearly as I could determine, and the feculent odor of the pus was characteristic of that infection. The associated streptococcus was, of course, the influential factor in determining the rapidity of the course of the disease in this case. The interest in the second case attaches mainly to the tardiness of its progress and the absence of pus. The two cases taken together clearly show the difference in severity which at times the disease assumes.

For a thorough discussion of the subject in all its points, readers are referred to the article of Thomas' mentioned above.

A Case of Musculo-Spiral Paralysis Resulting from a Syphilitic Periostitis of the Humerus.

By ROY M. VAN WART, M. D., C. M., New Orleans.

The patient, a negro boy, aged 20, who gave his occupation as that of butler, came to the out-patient clinic of the Touro Infirmary, complaining of his inability to use his right arm.

The family history was negative.

He could give little information concerning his personal history and denied having had any infectious or other diseases.

The physical examination showed a marked firm swelling in the musculo-spiral groove of the humerus, which gave rise to considerable pain on pressure. No pain could be elicited on pressing the musculo-spiral nerve, which could be felt partly encircled by the swelling. The muscles supplied by this nerve, the triceps, supinator longus, and the extensors of the thumb and fingers were completely paralyzed. Electrical reactions showed the presence of diminished faradic response with diminished galvanic responses. The negative pole gave greater contraction than the positive. There was not much atrophy and practically no pain except over the swelling. A radiograph by Dr. J. B. Guthrie showed the presence of a swelling of the periosteum, which was raised from the bone over an area about two inches in length. The further physical examination of the patient showed the presence of an initial lesion, which he said had been present for four months and which he regarded as of no consequence. There was considerable glandular swelling. There was no skin eruption and he denied having had any; probably, however, he neglected to notice it. He had received no treatment. The swelling and the paralysis rapidly subsided under an inunction cure. The case is of interest as showing a rather unusual cause of musculo-spiral paralysis, and the early appearance of the bone lesion.

Report of Two Cases of Pellagra.

By DR. JNO. N. THOMAS,

Superintendent Louisiana Hospital for Insane, Pineville, La.

As far as I am aware, the two cases here presented are the first instances of this disease reported from Louisiana. There seems to be nothing unusual or typical about them. In publishing these records, I am actuated by the desire to call attention to the probable prevalence of this disease especially in the northern section of this State where the working classes of people consume large quantities of corn bread, and where maize figures conspicuously in the diet list of all. I have no doubt but that numerous cases have occurred in the State, but were either not recognized or not re-

ported. The fact that the disease has attracted a great deal of attention in Alabama, the Carolinas, Georgia, and several other Southern States where conditions are almost exactly similar to those in Louisiana caused me to be on the alert to recognize any such case in the institution of which I have recently assumed charge.

Case 1: L. N., aged 30 years, colored female, married. Admitted to hospital March 1, 1909, from the Parish of Catahoula.

It is to be regretted that the complete history and the previous duration and symptoms in this case cannot be obtained. When the case was admitted to the hospital, the parties who accompanied her simply stated that she was brought and given into their charge, and that they knew absolutely nothing of the previous course of her illness. Careful observation was made of the case, however, after admission, and I submit the following notes:

Condition When Admitted: Patient was very weak and emaciated; unable to stand without assistance; when lying down is scarcely able to move the extremities at all; the hands, wrists, feet, ankles, neck, upper part of thorax, and face about the mouth and chin, are covered with an erythematous rash with exfoliation of epidermis and pigmentation of deeper layers of skin causing dark discoloration. There are superficial patches of ulceration of the mucous membrane of the mouth and genitalia, also subacute stomatitis and tendency to ptialism. Temperature sub-normal. Pulse rate 112; respiration 38; bowels loose.

The subsequent course of the illness from time of admission to death was a gradual progression towards complete inanition. The temperature remained normal or subnormal with the exception of four days (March 20, 21, 22, 23) when the evening temperature ranged between 99 and 100 degrees. About this time patient also had difficulty in swallowing and seemed to suffer pain. At all times the pronounced prostration was especially noticeable. The weakness in the extremities appeared to be most marked in extensor muscles, but at no time was she able to stand or raise herself unassisted. She was propped up and allowed to sit upright for two days only. Towards the last she was unable to move any of the extremities; merely lay helpless in bed.

During the last two weeks, a lateral tremor of the head and neck developed, and an occasional twitching of the facial muscles was noticed. All the deep reflexes were uniformly plus, though



Case I.
PAPER OF DR. THOMAS.

not markedly so. There was every evidence of moderate exaggeration of the muscular excitability. The superficial reflexes were normal. While lying in bed, patient developed several superficial ulcerations over the bony prominences, but there seemed to be no marked evidence of trophic disturbance.

The pupils were equal, round, sluggish to light and accommodation. Towards the last the patient swallowed liquids very poorly; milk often regurgitating through the nose, the deglutitory muscles seeming to participate in the widespread muscular weakness also.

Mental State: Patient is absolutely negative. Seems to understand what is said to her, but never speaks or makes any effort to do so. The condition is apparently one of partial dementia, and amentia. This remained the same throughout the time she was under observation.

Death occurred March 30.

Post Mortem Findings: Post mortem held 20 hours after death. P. M. rigidity marked. Height, 5 feet 7 inches. Weight, 75 pounds. Body—Poorly nourished and emaciated, wasting of muscular tissue. Brain—Dura adherent to skull cap and thickened. Ossified substance on cortical portion of brain under dura. Brain very small, highly congested and pigmented. Pons Varolii very dark and of an ashy gray color. Brain weight, 38 ounces.

Lungs—Apparently normal, but very much diminished in size. Weight of left lung, 11 ounces. Right lung, 11½ ounces.

Heart—Slate colored externally, very much atrophied, fatty degeneration. Weight 7½ ounces.

Liver—Slate colored externally. Weight 45 ounces. Gall Bladder—Empty.

Spleen—Very much atrophied, hard and elastic. Weight 3 ounces.

Kidneys—Apparently normal. Weight of left kidney 5 ounces. Right kidney 4½ ounces.

Small Intestine—Peculiar pigmentation, and atrophy of inner muscular coat. General hyperemia.

Large Intestine—Peculiar pigmentation more marked, and ulcers in large numbers are found throughout.

All other organs apparently normal.

Case 2. White male, 46 years old, native of Louisiana, Parish of Orleans. Has been an inmate of State Hospital for Insane for

the past 13 years. Was removed to this institution from Jackson, 1906. His mental condition supposed to have followed an attack of typhoid. The case was diagnosed as paranoia.

Complains of pains in epigastrium immediately after meals. Has suffered more or less with diarrhoea. Duration of present condition of the epidermis of hands and feet and region of genitals about three weeks. No record of attacks in past years, but it is likely that this is an old unrecognized case. No more complaints other than weakness.

Little is known of his previous history other than that the patient had typhoid fever years ago.

General Appearance—About six feet in height; weight not more than 125 pounds. Greatly emaciated and anemic.

Skin—Of a peculiar dirty color over entire body. The chest shows cicatrices as from burns. The hands show characteristic manifestations of pellagra. The skin from the nails to beyond the wrist joints is of a purplish red color, dry, and desquamated in flake-like crusts. The genitals, likewise the gluteal region, show similar conditions; the color, however, is more brownish and desquamation more intense in latter region.

The tongue, during stages of the disease when skin manifestations were more pronounced, was congested along edges and point, with slight coating. The "bald" characteristics, spoken of in connection with this disease, were easily obvious at this time.

As the inflammatory condition of the skin subsided, the gastrointestinal symptoms became aggravated and intensified and the tongue markedly congested and coated over with a membranous-like substance of yellowish white color, which desquamated and peeled in large flake-like masses not unlike the membrane from a diphtheritic patient. All efforts in so far as medication, etc., are concerned, failed up to date to better the tongue or gastro-intestinal condition to any extent.

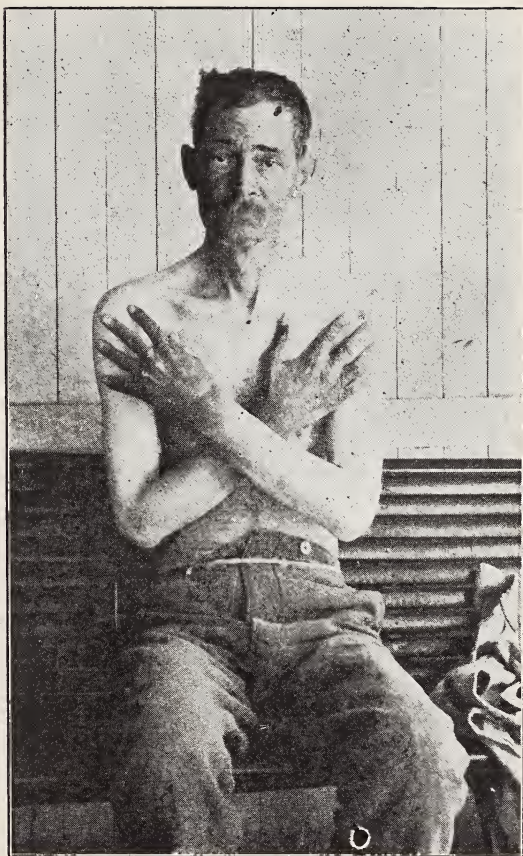
Mucous membrane of lips and gums pale.

Heart—No murmurs, but second sound is greatly intensified and snappy at both apex and base. First sound is muffled at base.

Pulse—Regular, but somewhat rapid, easily compressible and of little volume. Arteries sclerotic and easily palpable.

Abdomen—Nothing abnormal.

New Orleans Medical and Surgical Journal,
July, 1909.



Case II.
PAPER OF DR. THOMAS.

Blood Count—Red cells 3,200,000. Three counts.

White cells 5000. Relative increase.

Hemoglobin varies between 50 and 55.

Urine—Free from albumen. Phosphates and shreds.

Treatment—The treatment, hygienic, dietetic, medicinal, and mechanical, has been along lines as suggested by the best authors on this subject. Arsenic was used in various forms. The best results coming, probably, from atoxyl, given hypodermically. This drug when given in this case, by mouth, invariably produced vomiting. Fowler's Solution in conjunction with bitter tonics and iron was tolerated very well. Brandy with milk given every three hours.

Throughout the course of the gastro-intestinal symptoms, calomel in 1/10 grain were used with most satisfaction.

Highly nutritious and easily digested food is being given frequently and in small amounts, all of which seems to be assimilated.

Hygienic conditions were kept as near perfect as possible. The patient receiving an abundance of fresh air in darkened room, with frequent stimulating baths, etc.

Enemata of saline solution to cleanse lower bowel resorted to about every fourth or fifth day. Other treatment purely symptomatic.

Reference to the photographs herewith presented will give some idea of the disposition and character of the skin lesions, etc. The picture of the woman was taken the day before she died.

As stated at the beginning, this report is intended merely as a brief record of the cause dealt with, and I make no pretense to full and complete report of all details of the cases. I believe that if the attentions of physicians in Louisiana be drawn more definitely to this disease, more cases will be recognized and reported.

If damaged or diseased maize and its products are responsible for the existence of this grave disease, as is held by Bellamy, Lombroso, and others abroad, and by Babcock, Watson, and others in this country, every effort should be made to recognize and know the damaged cereal and exclude it from the list of food supplies. That such grain should be condemned and destroyed needs no argument. If damaged corn meal and grits are responsible for the existence of the cases reported in institutions in the Carolinas,

Georgia, Alabama, and this institution, as seems likely in the two cases above reported, then corn meal, at least, for reasons of humanity should be excluded from the bill of fare of these institutions until some method is found by which the damaged product can be positively recognized and excluded from that which is really good.

Indian maize and its products enter largely into the food supply of the South and the fact that millions of people south of the Ohio river daily eat corn bread and grits, not only without deleterious effect, but with beneficial results, make it impossible to condemn at one "fell swoop" this natural food supply, simply, because the damaged product is supposedly causing a grave disease.

I have personally observed thousands of Mexicans and natives of Central America, from the Rio Grande to Panama, who live almost exclusively on corn used in the form "Tortillas," prepared in the crudest and most unsanitary manner and have yet to see manifestations of this disease on any of these people, nor do I know of any cases reported from these countries, yet many practitioners there are graduates of European schools of medicine and are men of splendid ability, capable of recognizing and diagnosing the disease.

To condemn all maize products for food would be as unreasonable as to condemn meat and fish for food, because damaged and tainted meat and fish produced sickness and was unfit for human consumption. The problem seems, therefore, to be able to recognize and condemn bad maize and its products and exclude it from the dietary of human beings.

I wish to acknowledge my indebtedness to Dr. G. H. Searcy for many points of information in personal communications and from a recent contribution by him in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*.

NOTE—Since writing the above article another unmistakable case of pellagra has developed on the female side of this institution, and I have learned from an attendant on duty here throughout the year 1908, that Case 2 had a "bad diarrhoea with a red tongue" all last summer and that there were other similar cases.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.

DR. HOMER DUPUY and DR. H. D. KING.

DISCUSSION ON DR. HENRIQUES' PAPER.

DR. CAZENAVETTE: I listened with much interest to Dr. Henriques' paper, because I have during the past several years used and am still using the high frequency current.

The current I use is derived from a 16 inch Scheidel coil (fed by 110 volts direct current) after passing through a set of Leyden jars and a solenoid, Oudin's resonator. I wish to speak more particularly about the unipolar method of application in the treatment of condylomata and small benign tumors of the skin, such as warts, etc. It is in these conditions to be considered the treatment of predilection for it requires but few applications, very often only one application, it can be used in regions difficult of access by other means, and its action is more constant and more rapid in its immediate results.

The technic of its application when the unipolar method is used is not very difficult. The amount of current that is to be used can be very easily controlled by the operator holding the glass electrode itself in his hand and thereby allowing a certain amount of current to be diverted in this direction before it reaches the patient. The spark can in this way be controlled so that only a $1/4$ spark will reach the patient or the part to be treated. While the wooden handle of the electrode is grasped in the left hand the right partly holding the glass electrode gradually lessens the surface of the hand touching it; as for instance, if the palm of hand first touches it, then sliding the hand until three, two, or only one finger is in contact with the electrode. This will allow more current to reach the patient and it will then give you a spark $3/4$ to one inch which can still be increased by removing the right hand altogether from the electrode. The small spark will very materially assist because

it causes a certain amount of analgesia which renders the use of longer sparks, necessary for results, less painful.

The tissues are first seen to become white, then yellow and finally brown, as if grilled. Often a little hemorrhage is noticed at the point of immediate contact of the spark on the tissues but this is easily stopped by allowing just a little more sparks to pass through. There is then left a scab which drops off in a few days leaving a clean surface with little or no scarring.

These local effects are the results not only of the heat of the spark but also of the spasmodic state of the capillaries due to the rapid vibration in current and undoubtedly of a certain degree of cellular destruction due to the rapid bombardment within the tissues. Some authorities believe that this current has a certain selective property for neoplastic cells.

DR. ASHER: I would like to ask the doctor, in closing, would he mention the specific application and cite cases as to results?

DR. WM. M. PERKINS: I would like to ask the men who are interested in this kind of work have they seen any bad results from the use of the high frequency current. I may mention a female patient of mine, suffering with pain in the thigh, apparently rheumatic, who was treated by me with a high frequency current and a dermatitis followed. One application of cold cream cured her.

DR. DANNA: I would like to ask the men who are interested in this kind of work what cases in their experience have been benefited by the high frequency method and also their results? I remember, one year ago, a young lady came to see me suffering with alopecia and I had taken her to Dr. Dyer, who tried the high frequency method and to-day she has a new crop of hair. As Dr. Cazenavette is here, he is familiar with the case and can say that what I say is true.

DR. CHASSAIGNAC: I have used the method in a small way, using the vacuum form of electrode in the treatment of chronic or subacute prostatitis. In cases of the subacute form, because of the pain in massage, I have found this method of decided benefit because after one or two applications, massage then can be performed, which before could not be made on account of excessive pain. My experience of two years with it tends to show it will do something that massage by itself cannot do. No matter how it acts, it is practically of benefit in the cases I have just mentioned.

DR. CAZENAVETTE: In the case of premature alopecia referred to by Dr. Danna the high frequency current was used and the result was astonishing.

The action of the current as it was passed over the scalp was a blanching effect caused by the contraction of the arterioles due to the bombardment of the current; this was followed by a reaction, and a relaxation of the blood vessels taking place, giving rise to hyperemia and local heat. This hyperemia may last from two to six hours.

DR. HENRIQUES (in closing): In answer to Dr. Perkins, local applications of high frequency will produce varying degrees of hyperemia according to the mode and duration of the application. This point was brought out in my paper. If its action is prolonged blistering and even sloughing will result.

Regarding the treatment of baldness, the use of High Frequency is successful in premature baldness, usually in those under 35 years of age, beyond that age it is without much value.

As to Dr. Danna's question, these currents have been used with benefit in quite a number of diseases. I have purposely refrained in my paper from consideration of those conditions in which this form of electricity is used, expecting to present at some future time this phase of the subject. In the paper just read I have dealt only with the physiological action of High Frequency Currents. The list of diseases is long and includes certain cutaneous disorders, chronic prostatitis and chronic urethritis, hemorrhoids, chronic rheumatism, diabetes, arterio-sclerosis, neurasthenia, etc.

DISCUSSION ON DR. JACOBY'S PAPER.

DR. PERKINS: I induced Dr. Jacoby to report this case, as it was the first one that I had seen. He had operated on the patient at the hospital before my class. This malady usually follows some infection of Steno's duct. The classical incision was not made, as it would have cut the duct and drainage would have been defective. These cases are rare, there being four cases reported.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Bureau of Public Health.

The recent kindly attitude of the President of the United States to the delegation of the A. M. A. visiting him in the interest of the long-agitated question of the Public Health and proper governmental representation points to a possible outcome favorable to the cause.

Everywhere the States have more fully realized and met the local needs, and in some States the authorities have gone further, making regulations which not only register vital statistics, but which look after the health conditions in even minor respects. Health boards have busied themselves in studying exigential problems of unusual diseases and in establishing rules which will largely prevent future exposure to like conditions. These, however, are at all times transitory acts of officials, born of political appointments, and variable as are the tenures of the positions which the health officials occupy. It often eventuates that the action of these officials is governed largely by individual or public opinion, varying with the times.

The whole movement of those intelligently interested in the Public Health is toward a consistent and a uniform system, which will apply universally. Pure food laws, to be efficient, must be enforced alike in all States, and, while a national law can be rigidly carried out, it must have its limitations apparent to all. Even where States have expanded the already existent national laws regarding pure food, these have varied largely in different States.

The governments of countries where a central control over all divisions obtains have succeeded in codifying health regulations so that they are easily followed. Now the United States is entirely dependent upon a conglomerate system with an apparently effective service under the jurisdiction of the Treasury Department, but which always has lacked, and always will lack, the support of the

States themselves, whose authorities continually hold different views of administration and who are not subject to the same rules and regulations governing their actions.

We know that argument on argument has been made before now for a Cabinet officer who shall control a Bureau of Public Health, but if ever the time was ripe for such a consideration, that time is now. Territorial interests, Preventive Medicine in the dominions of the United States abroad and at home, problems of economic and humanitarian needs, public morals and daily domestic needs—all demand consideration, and under a crystalized system of study undertaken with liberal policy by a paternal government.

The questions before the National Congress are all of small importance compared with the healthfulness of the next and the next generations, and a far-sighted Executive of a great Nation should busy himself with organizing a protective policy under the exact administration with power to act, to make effective what the medical profession advises and demands, and what the public must have sooner or later—a Bureau of Public Health with a Cabinet officer at its head.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

THE CLINICAL SIGNIFICANCE OF GLYCOSURIA IN PREGNANT WOMEN.—Dr. J. Whitridge Williams contributes to the *American Journal of Medical Sciences* for January, 1909, a valuable paper based on the collected histories of 66 pregnancies associated with glycosuria. Of the cases of pregnancy occurring in diabetic patients, he found 57 pregnancies in 34 women: Gross mortality, 24.58 per cent.; during labor and puerperium, 12.29 per cent.; children alive, 50.88 per cent.; born dead, 36.88 per cent.; aborted, 12.24 per cent. Of cases of diabetes developing during pregnancy he found 9 in 9 women: Maternal mortality, 78 per cent.; in first ten days, 45 per cent.; one to fifteen months later, 33 per cent.;

fetal mortality, 66.67 per cent. He says that a positive reaction with Fehling's solution during pregnancy does not necessarily indicate the existence of diabetes, but is usually due to lactosuria or to transient, alimentary, or recurrent glycosuria. Of such cases it is imperative to determine whether the sugar occurs as lactose or glucose, as lactosuria is without clinical significance, and is probably associated with premature activity of the breasts. The significance of glycosuria is not so clear. If alimentary in character it may be regarded with impunity. Otherwise it may be of the transient or recurrent variety, or may indicate the existence of true diabetes. If the glycosuria appears late in pregnancy, does not exceed 2 per cent. in amount, and is not accompanied by symptoms, it is probably transient and may disappear spontaneously at any time or persist until the end of pregnancy. In either event it is usually of slight clinical significance, and merely indicates that the patient should be carefully watched. If the sugar appears early in pregnancy, and in large amounts, the condition is more serious, as it may be impossible to make a positive diagnosis until after delivery, when the condition disappears in glycosuria, but persists in diabetic cases. Pregnancy may occur in diabetic women or diabetes may become manifest during pregnancy. Either is a serious complication, although the prognosis is not so alarming as is frequently stated; many patients do perfectly well, while a smaller proportion die in coma or collapse at the end of pregnancy, or during or shortly after labor. If the output of sugar is large and cannot be controlled, or at least markedly diminished by suitable dietetic and medicinal treatment, the induction of abortion or premature labor is indicated even in the absence of serious symptoms, and much more so when they are present.

MILLER.

THE BEST METHODS OF PROMPTLY TERMINATING THE FIRST STAGE OF LABOR, WITH SPECIAL REFERENCE TO VAGINAL CESAREAN SECTION.—Dr. Henry Fry (*American Journal of Obstetrics and Diseases of Women and Children*) draws the following conclusions from a lengthy article on this subject:

"1. Any method employed to terminate artificially the first stage of labor should be selected according to the condition of the parts to be dilated.

"2. Such conditions pertain to the physiologic softening of the tissues and to the stages of dilatation, viz.: opening of the internal os, canalization of the cervix and dilatation of the external os.

"3. Broadly speaking, the indications for the employment of manual dilatation and cervical incisions should be restricted to those cases in which the cervix is effaced, and the resistance of the external os only remains to be overcome.

"4. The manual methods will meet the requirements of a large percentage of the cases; cervical incisions are rarely demanded unless there be some pathological lesion of the tissues.

"5. The Bossi dilator is an unnecessary instrument in the armamentarium of the obstetrician. The principle of using a steel dilator in gynecology is correct, but the practice cannot safely be employed in obstetric work. The full dilatation of an intact cervix by forcible instrumental stretching is bad practice. Such conditions are best overcome by vaginal Cesarean section." MILLER.

AN ANALYSIS OF EIGHTY CONSECUTIVE CASES OF ECTOPIC GESTATION.—Dr. Robert T. Frank contributes to the *American Journal of Obstetrics* for February a paper based upon the records of eighty unselected, consecutive cases of ectopic gestation admitted to Mt. Sinai Hospital from December, 1902, to September, 1908. The conclusions reached from the study of this material, with more and particular attention to the immediate versus deferred operations, are as follows:

"1. Before all else, the diagnosis must be assured. Patients who give a history suspicious of ectopic pregnancy—spotting, cramp-like pains, fainting, collapse, with or without some of the less certain signs, such as amenorrhea, the accessory symptoms of pregnancy (morning vomiting, increase in size of the breasts, etc.)—and in whom the uterus does not show the shape and size corresponding to their supposed period of gravidity, or who have a mass near the uterus, should be consigned to a hospital, or should be kept under the closest observation at their homes.

"2. Such patients should never be subjected to forcible examinations, nor should they be curetted until every possibility of ectopic pregnancy has been definitely excluded.

"3. If after two or three days of observation the condition has not definitely improved, and no marked tendency to hematocele formation has developed, laparotomy is indicated. Should severe

attacks of pain, fainting or collapse ensue during this period of waiting, operate at once. Where a hematocele is still small or ill-defined, laparotomy will shorten the period of convalescence. In well-drained hematoceles, vaginal section for evacuation and drainage suffices.

"4. If a patient, when first seen, is in precarious condition, it is safer to err on the side of early operation than to wait.

"5. When a patient is seen in extreme collapse, immediate rapid laparotomy, with subsequent measures to combat both the hemorrhage and the shock, is indicated. That experienced diagnosticians are deceived and fail to distinguish between transitory primary shock and really grave hemorrhage, is doubtlessly true, but I would prefer to have them interfere unnecessarily early rather than too late.

"Whether in the future, advance in the differential diagnosis between hemorrhage and shock will enable the surgeon to recognize the anatomical conditions before operation, is a matter of pure speculation. At present the earmarks which constitute the small class of extreme cases still remain an open question, and indications will accordingly vary with the experience of each individual gynecologist."

MILLER.

Department of Internal Medicine.

In Charge of Dr. E. M. Dupaquier, New Orleans.

GOATS.—There never were so many goats in and around New Orleans as there are at present. And, if the influx of the Levantines continues, we shall see still larger herds of the *Capra* varieties here.

It seems pretty certain that everywhere the milk and flesh of goats are consumed there exists the so-called Malta Fever.

Wimberley and Strachan, in their interesting reports, show that in India and in South Africa the goats were a probable factor in the spread of Malta fever.

Danlos reports cases of Malta fever near Paris, where some people had imported goats for humanitarian purposes.

So, here, when paratyphoid fever cases exist, with their usual

puzzling features, we should not overlook the *Micrococcus melitensis*.

KALEIDOSCOPE.—The endless variety of treatments in practice recalls to the mind this instrument, with the exception of the “beautiful colors” and the “symmetrical forms.” If there is anything to take one’s breath away it is to read reports on series of cases of typhoid fever successfully, though exclusively treated with pyramidon; or pneumonia in the young, adult and old uniformly treated with brewers’ yeast, leeches, digitalin, belladonna and morphin, with the most remarkable result that in 48 hours convalescence had begun. Indeed, these were not unkind cases! Indeed, some fellows are lucky!

Unfortunately, and in reality, it is all, as of old, but a matter of degree of severity, degree of resistance, complication or no complication, taint or no taint.

The kaleidoscope of practical treatment is not attractive at all. It is sad to look at.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

THE VALUE OF SPINAL PUNCTURE IN DIAGNOSIS.—M. H. Russell (*Archives of Diagnosis*, 1908, i, 176) describes the technic of spinal puncture thus: A sharp, hollow needle, three to four inches long, and a little smaller than an ordinary matchstick, is the instrument employed. Strict asepsis is enjoined. The patient should lie on his side, with spine bent forward as much as possible and legs drawn up. The puncture is made close to the spinous processes between the second and third or third and fourth lumbar vertebræ. The needle should be held perpendicular to the spinal column, plunging thus through the skin; then the needle should be turned slightly upward and toward the centre; it at once slips into the spinal canal; but, if not, it must be pushed in different directions, until the aperture is found. If blood stops up the needle, the clot must be displaced with an obturating wire. Wherever the symptoms point to meningitis this test should be performed. If done aseptically, it is a dangerless operation. Five cases are quoted;

in one of these, the examination of the fluid revealed epidemic cerebrospinal meningitis; in one, tuberculous meningitis; one proved to be negative; one proved to be pneumococcic cerebrospinal meningitis, and the last was a staphylococcic meningitis following a middle-ear suppuration. None of these cases could be diagnosed definitely until after the spinal fluid was examined, and there was a great resemblance between several of them. VAN W.

THE MECHANICS OF THE CEREBROSPINAL FLUID AND ITS EMPLOYMENT IN LUMBAR ANESTHESIA.—Propping (*Mitt. a. d. Granzgeb. d. Med. u. Chir.*, 1908, xc, 441) makes the following practical applications of the results of his study of this subject. Elevation of the pelvis, just as does the sitting position, causes a movement of the cerebrospinal fluid in the subarachnoid space, although this is relatively slight. We have no means of determining the quantity of cerebrospinal fluid present, or its distribution. It is advisable not to withdraw large quantities of the fluid, since we do not know in what relation the withdrawn fluid stands to the whole quantity present. We must have in mind, in every case, that the anesthetic, by means of the cerebrospinal fluid, reaches the medulla oblongata. How quickly it progresses in each case we do not know. If the anaesthetic is a heavy solution of high specific gravity, the diffusion in the horizontal position occurs with relative rapidity. It would appear, therefore, that the head should be elevated after the operation to impede the rapidity of the diffusion. A prolonged elevation of the pelvis after the injection of a solution of high specific gravity must be regarded as dangerous. VAN W.

HYSTERICAL PAROXYSMAL EDEMA.—F. H. Edgeworth (*Quart. Jour. Med.*, 1909, ii, 2135) attempts to differentiate from the large and indiscriminate class of cases sometimes called "angioneurotic edema," a group which is of hysterical origin and which is characterized by the repeated occurrence of transitory edema affecting "geometrical" or segmental areas of the body surface, associated in some cases with disturbance of sensation, hysterical in type. Edgeworth reports several such cases, in which were presented the features of a subcutaneous edema of fairly sudden onset, the whole area becoming affected uniformly at the same time; the surface of the skin was generally natural in color, but sometimes was hyperemic or white and cold or purplish; the edema at its height

was firm and non-pitting; later, during subsidence, it became softer; the edge was always abrupt. There was no pain, only a mechanical inconvenience, and the duration was usually from eight hours to two days. The areas corresponded to the natural divisions of the body, e. g., the mammary, or with areas covered by articles of clothing, stockings, socks, gloves, etc.—that is, with the areas called “geometrical” or segmental by writers on hysterical phenomena. There were some sensory disturbances. This condition must be differentiated from the hysterical chronic edema of Sydenham and Charcot, and the angioneurotic edema so well described by Milton, Quincke and Osler. But, by careful attention to the “geometrical” type of the area affected, the abrupt edge, the disturbances in sensation, lack of gastrointestinal crises, or the presence of other visceral manifestations, Edgeworth suggests that cases of paroxysmal edema may be divided into two categories—those of Quincke’s edema (angioneurotic edema) and those of hysterical origin. The former was allied to Henoch’s erythema, the latter to hysterical chronic edema. The former are probably due to some blood change, and the latter to some disturbance in the central nervous system.

VAN W.

SACRAL ANESTHESIA.—Stoeckel (*Zentralbl. f. Gyn.* No. 1, 1909) draws attention to the value of sacral anesthesia. The patient is placed upon the left side, with the lower extremities strongly flexed. The upper thigh is brought up to the abdominal wall. The index finger of the left hand marks the sacral hiatus, and in the fatty tissues the borders of this cleft may be marked with a sterile pencil. With the right hand, a needle is introduced through the skin and carried slowly through the membrane into the canal. But little practice is required to make the injection accurately. If the needle passes into the periosteum it can readily be withdrawn and proper direction obtained. The injection is made slowly. If the skin becomes distended, a false passage has been made and the fluid is being injected beneath the skin. The needle must be withdrawn and introduced again. But little, if any, hemorrhage accompanies this injection. There is very little pain if the injection is made with aseptic instruments under antiseptic precautions. The length of the needle varies from 2.6 cm. to 4.5 cm. The fluids injected are salt solution, novocain solution of varying strength, with or without adrenalin or suprarenin,

eucaïne and beta solution with or without suprarenin. The smallest quantity used was 3 c. c., and the largest 83 c. c., while the average was from 30 to 35 c. c. This injection was used in 141 cases, 89 primiparæ, 52 multiparæ. These were normal parturitions without complications. In 139 cases, one injection was made; in 2, the injection was repeated. In 96 patients, the injection was made during the period of dilatation. In 45, during the expulsive period. In 72 patients, pains in the back were entirely removed by the injection. Pain in the back and abdomen as well yielded to injection in 39 cases; 23 patients complained of a sensation of fulness and tension about the anus, probably resulting from the irritation of a coccygeal nerve. In 9 cases the extrusion of the head was absolutely painless; in 16 cases very little pain was felt. Patients seemed to suffer far less and to be much more manageable after the injections. In 3 cases the head was finally delivered with forceps, and in 2 a tear in the perineum was closed without suffering. In 2 cases patients felt so much pain when the forceps was tried that a few drops of chloroform were given in addition. Very evident relaxation of the muscles of the perineum and pelvic floor was observed in 4 cases. Injections began to affect patients in from three to five minutes. The effect persisted in a few cases a few minutes only, and in some cases as long as six hours. When injections were made early in labor, uterine contractions seemed to be lessened in 23 patients. In one case, in which pains were just beginning, uterine contractions ceased after the injection and did not return for four days. This suggested the use of this treatment in threatened abortion and premature labor. The action of the abdominal muscles seemed to be somewhat stronger after the injection than without it. In one patient, the child's heart-sounds became slower than normal, and the head was immediately delivered by an easy forceps application. In the third stage of labor, if atony of the uterus showed a tendency to develop, this was controlled by the addition of suprarenin to the injection. One hundred of these patients lost less than 500 c. c of blood; 33 less than 1,000 c. c.; 6 more than 1,000 c. c.; 2 more than 1,500 c. c. The dose of suprarenin must not be too large, or an unfavorable result will be produced. No unfavorable effect upon the children was noticed. In the puerperal period, in one case, pains were experienced in the lumbar region; these disappeared spontaneously.

It was interesting to note that retention of urine was not present in any of these cases; the use of the catheter was entirely unnecessary. In one patient, 66 c. c. were injected by a false passage, causing phlegmon in the right gluteal region, which finally required incision and drainage. The bacteriological examination of the solution, supposed to be sterile, showed the presence of streptococci.

In addition to these researches, Stoeckel has tried this method in five cases of dysmenorrhœ; pain in the back was controlled and pain in the abdomen was very much lessened. It seems probable that pain in the back from various causes can be controlled in this manner. An experiment was made by injecting into a patient with healthy kidneys 3 c. c of weak methylen blue solution into the sacral canal, and then observing the discharge of this fluid into the urine by catheter placed in the bladder. The urine began to be colored within one hour after the injection, and the coloring persisted for four days. Anesthetic solutions injected, begin to affect the patient within a few minutes after the injection, the effect disappearing in about an hour. These would indicate that the remedies act locally.

The article is fully illustrated, and diagrams showing the course of the various sacral nerves and sacral canal are added. VAN W.

Miscellaneous.

HEMOGLOBIN ESTIMATION AND THE FUNCTIONAL VALUE OF THE HEMOGLOBIN.—Oerum (*Deut. med. Woch.*, 1908,34, 1225), has made comparative studies of the hemoglobin of normal individuals in Berne, Switzerland, and in Copenhagen. In his studies he has used the Sahli standard tube and compared the results obtained with the von Fleischl-Miescher instrument. In Berne he found that twenty men between the ages of 19 and 22 years had an average hemoglobin of 80.7 per cent. (Sahli). Reckoned in coloring matter for 100 c. c. of blood, this equals 13.8 per cent. hemoglobin. In Copenhagen the average of thirty students was 99.6 per cent. (Sahli). Thus, there is a marked difference in values in Switzerland and Denmark with the same Sahli tube. But the Miescher apparatus gave equal readings in both cities. The difference is to be explained by the difference in elevation above the

sea. By comparing the readings obtained with the Sahli and Haldane instruments, Oerum finds that a given quantity of hemoglobin may show greatly varying powers for absorption of carbon monoxide. Therefore, while the color intensity of the blood of normal individuals in both Berne and Copenhagen is alike, the hemoglobin content of the bloods is different. Comparing the results obtained with Sahli and Haldane's instruments, Oerum reckons the so-called functional value of the hemoglobin, to which he attaches considerable importance.

REFLEX CARDIAC ARHYTHMIA.—Koblanck and Roeder (*Arch. f. d. ges. Physiol.*, 1908, cxxv, 377) have undertaken experimental investigation of a phenomenon observed clinically and reported upon (*Deut. med. Woch.*, 1908, No. 24) by one of the authors, who studied a case of cardiac arrhythmia which was apparently due to changes in the nasal mucous membrane. Eight cases of cardiac arrhythmia were subsequently cured by electrolysis of the nasal mucosa. Although the myogenic theory of the heart-beat is well grounded, the nervous system plays an important regulatory rôle, and it is often difficult to determine which of the regulatory factors is at fault in a given case of arrhythmia. The authors add to the number of factors already considered responsible for cardiac arrhythmia a swelling or irritation of a certain region of the nasal mucous membrane. In a series of experiments, they stimulated the nasal mucosa mechanically and chemically in dogs and rabbits while arterial pulse curves were taken. They found a definite spot in the nasal mucosa high up on the septum, the stimulation of which was followed by a definite, well-marked arrhythmia. Various other points in the nose and points in other parts of the body were stimulated without producing any effect on the heart rhythm, but the authors do not believe that the "Herzstelle" in the nose, which they describe is the only point where reflex disturbance of the heart rhythm may be produced, but that this is a point of predilection. Arrhythmia was produced in a dog and in a man during a "nose-bleed," which ceased when the nose was freed from the blood which rested between the middle turbinate and the "Herzstelle," and the adrenalin was found to stop the "nose-bleed" and cure the arrhythmia at the same time. This drug affected arrhythmia due to swelling of the mucous membrane of the nose, and electrolysis of the spot

resulted in a disappearance of the arhythmia. The nervous path from the nose to the heart was investigated by stimulation, after cutting the vagus and the second branch of the nasal trigeminus, and the authors conclude that the vagus is not the only path by which this reflex travels. The reflex is, however, cut after the second branch of the trigeminus is cut. The arhythmia was observed in the exposed heart, in which both auricles and the ventricles were seen to be affected by this form of arhythmia.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES HOUSE OF DELEGATES.

MAY 4, 1909, 8 P. M.

The House of Delegates was called to order by the President, Dr. Martin, Tuesday, May 4, 1909, at 8 P. M., with 38 members in attendance.

Drs. T. B. Younger, of Sabine, and Thomas Ragan, of Lincoln, explained their inability to present regular credentials, and, their explanations being accepted, it was ordered that they be duly installed as Delegates.

The minutes of the special meeting of the Society, February 27, 1909, were read and adopted.

The President presented his annual report.

To the House of Delegates of the Louisiana State Medical Society:

GENTLEMEN:—The Society is to be congratulated upon the establishment of this body. As it is now composed, I think I have reason to believe its first meeting will result in much good to the Society. There are many matters of vital importance to its future success which must be passed upon by you. The membership is growing annually and new rules and regulations must be introduced to keep the machinery running smoothly. The organization of our parish societies is not encouraging; whereas, many are doing good work and meeting regularly, none have a full membership, and many are societies in name only. Something must be done to excite interest in the meetings. I believe that either your President or some member of this Society should go among the doctors and induce them to take a livelier interest in our medical organization. During my term of office I attended five meetings of different parish societies. With one exception, all were doing good work, and I feel very grateful to these gentlemen for the very kind reception tendered me. In every instance my loss of time was more than repaid by the results accomplished.

LEGISLATURE. At our last meeting certain amendments to our medical practice act were suggested by your Committee on Legislation, which this Society, by resolution, adopted, and the committee was instructed to use every effort to have the amendments passed by the Legislature. This was no easy task, and the success of the undertaking is due more especially to the efforts of Drs. Callan and Chassaignac, for, though assisted by Drs. Harper, Hummel, Dyer, Ledbetter and others, who very willingly went to Baton Rouge, at a personal sacrifice of time and money, the campaign was brought to a successful termination by the untiring efforts of these two gentlemen, to whom I feel personally indebted. My hope is that, should we again go before the Legislature, our members will manifest a greater interest.

ELECTION OF OFFICERS. It will now become your duty to elect the officers. Please bear in mind that the affairs of this Society are growing of more importance annually. There are many matters of importance coming up at all times, and in your selection you should use every effort to choose such men as are willing to bear the burden and obtain the best results at a personal sacrifice of time and money. I believe the best results will be obtained by making nominations in open meeting and allowing the entire body to cast their votes. The candidate receiving the majority of votes is more likely to be the choice of the association.

SECRETARY. I have nothing but words of praise to say of the Secretary. He has worked very faithfully during the year and has filled the position most satisfactorily, and whereas it may not be time to do so just yet, I believe the day is not far distant when the work of this Society will require the entire time of one man.

PAYMENT OF DUES. The present method of paying into the treasury dues of the Parish Society thirty days prior to the annual meeting is not satisfactory. I would suggest that these payments be made quarterly, as the Society must have funds to pay its current expenses; otherwise it cannot meet its obligations promptly.

PROGRAM. We find ourselves confronted with another difficulty which, up to the present time, has been of slight importance. Our scientific program is so large that it is an impossibility to get through with it. You must suggest some means of curtailing it. Dividing the Society into sections will not be popular. Some other means must be adopted.

TREASURER. I have had the Treasurer's books examined by an expert at the nominal cost of \$10.00, the report of which will be submitted by him and will greatly facilitate the work of the Auditing Committee. This expert has also made some suggestions that will prove of great assistance to the Treasurer in keeping the books.

Other matters of importance will present themselves, many of which cannot be considered at this meeting, but I think you should take up the more important questions and act upon them at the earliest possible time.

Respectfully submitted,

E. DENEGRE MARTIN, *President.*

The Secretary presented his annual report.

ANNUAL REPORT OF THE SECRETARY FOR 1909.

NEW ORLEANS, May 4, 1909.

To the House of Delegates of the Louisiana State Medical Society:

GENTLEMEN:—Aside from the routine matters which have been handled by the Secretary's office, only several items of note in my province need to be reported upon:

During the fiscal year just passed, insistent efforts have been made by the President and myself to prevail upon the physicians in the respective parishes where there is no component society to organize or secure union

with a neighboring parish to obtain representation in a component society. During the month of November last year I addressed a letter to every regular physician in the then unorganized parishes, expressing willingness on behalf of Dr. Martin, the President, and of myself, to visit whatever place might be designated by the physicians of these parishes to attend organization meetings. We only asked that they express willingness to call and attend such a meeting and assist in organization. Two hundred and eighteen such letters were mailed. Six responses were received: one from the wife of a physician addressed, informing us of the death of her husband; one stating that the writer did not believe in medical societies, two offering to assist in the work, one from a conscientious physician stating that his health was such as to deter him from active work, and one giving information that the party addressed had removed to another State. In spite of this rather indifferent response to these communications, I feel that the effort bore some fruit, as four of these parishes have organized since that time. Unfortunately, however, only three of these have thus far received charters (St. Helena, Jefferson and Livingston); two parish societies have become defunct (Caldwell and Vernon). There are fifty-nine parishes in the State. Of these, forty-one are organized into forty-one component societies. As explained in reports of my predecessor, the number of physicians in several of these parishes is so small as to make single parish organization impossible. The majority of physicians in such parishes have joined the society of their neighboring parish.

Our membership at the last meeting was 936. It is now 1,096. There are registered at the Board of Health office 1,789 regular physicians apparently eligible to membership. From these figures it will be observed that there is yet lots of room for expansion in our membership.

In obedience to a resolution passed by the society at the last annual meeting, ruled blanks were sent to the secretaries of parish societies for report to this office on membership, changes of addresses, non-members, etc. Only twenty-two were returned filled, in spite of repeated efforts by letter to get a full report.

Fraternal delegates were appointed by the president to represent our society at the meetings of the State societies of Texas, Arkansas and Mississippi.

The society met in extra session February 20 of this year and adopted, with amendments, the report of the committee appointed to draw up plans for establishing a house of delegates, thus constituting this body. Minutes of this meeting are at hand and give an account of the session.

Delegates have been appointed and credentials forwarded from twenty-five parish societies. According to credentials now in my hands, this body numbers forty-two members.

I have prepared and have at hand an appendix giving list of parish societies, number of members of each, number of unorganized parishes, with number of physicians who hold membership directly without belonging to any parish society.

The work of the publication committee and the committee on scientific work being inseparable from the secretary's office, report from these committees is herewith included. During the fiscal year just past, forty-nine scientific papers and reports, with discussions, business minutes, news items and other minor matters, were published in *The New Orleans Medical and Surgical Journal*. Publication of the transactions was finished in the May issue of *The Journal*. The programme of the present meeting is before you and speaks for itself.

Attention is directed to the fact that only two copies of the constitution and by-laws are extant. These do not incorporate amendments providing for the establishment of a house of delegates. I, therefore, recommend

that the secretary be authorized to have copies of the revised by-laws printed.

Observation has convinced us that those component societies with largest membership and covering largest territories are safest against disruption, apathy and disintegration. It is therefore suggested that parish societies be encouraged to amalgamate wherever these tendencies menace the existence of a single parish society.

In conclusion, I wish to express my appreciation of the kind support of the president and my fellow officers. I also wish to acknowledge my obligation to the editors of THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL for their uniform courtesy and the facility and promptness with which they have published all matter submitted to them by this office. To the members of this society I desire to express my gratitude for the trust imposed in me, of which I hope to be found worthy at all times. Mr. Augustin, our assistant secretary, has given me ever-willing assistance in the rather arduous and voluminous routine work of my office.

For the first time in the history of the society, abstracts of papers and discussion will be sent to the *Journal of the American Medical Association* for regular publication. Very respectfully yours,

E. M. HUMMEL, Secretary.

PARISH SOCIETY MEETING.

The semi-annual meeting of the St. John-St. Charles Bi-Parish Medical Society was held at Reserve, Tuesday, June 1, with Dr. V. Lehmann, of St. Charles Parish, presiding as President *pro tem*.

Several cases of interest were related by the members, and the discussion on same was participated in by the whole Society.

A short, but instructive, paper was read by Dr. L. T. Donaldson, Sr., relating a case of typhoid spine that had fallen under his observation.

One new member, Dr. Louis Caboche, of Wallace, Parish of St. John, was elected, and his name added to our roll.

Upon a formal motion, duly seconded, the sum of five dollars was contributed to the relief fund of the widow of Dr. James Carroll, surgeon and major, U. S. Army.

After adjournment the Society retired in a body to a luncheon spread in the adjoining hall. (Dr. L. Cheves Tebo, Secretary.)

Medical News Items.

OPENING FOR PHYSICIAN IN PANAMA.—The United States Civil Service Commission announces an examination on July 21, at the office of the Commission in Washington, or at any Pensioning Examining office, to secure eligibles for vacancies in the position of physician, at \$150 per month, in the Panama Canal Service. Applicants must be citizens of the United States, graduates of a recognized medical school and must have had at least one year's experience as interne in a general hospital; others will not be admitted to the examination. The position is open to men only, and the age limit is from 20 to 45 years. Further information may be had by addressing the United States Civil Service Commission, Washington, D. C.

LOUISIANA STATE BOARD OF MEDICAL EXAMINERS—NEW RULES AND REGULATIONS.—“On and after June 1, 1909, the Louisiana State Board of Medical Examiners will grant a license, without examination, to applicants who will comply with the following conditions:

“1. They must furnish the Board, through the Secretary, with the application form properly filled out, together with a recent unmounted photograph, and if found eligible

“2. They must appear in person before the Board.

“3. They must present a diploma from a college rated Class A by this Board (*i. e.*, medical colleges rated between 70 and 100 per cent. by the Council on Medical Education of the American Medical Association).

“4. They must present their permanent certificate of examination by and from a State Board of Medical Examiners recognized by the Louisiana State Board of Medical Examiners, and have practiced medicine for at least one year since they obtained said license.

“5. They must present a sworn statement, either from the Dean of the College from which they graduated or from the Secretary of the Parish or County Society in which they reside, or from the Clerk of Court of the parish or county in which they reside, certifying to their moral and professional character and their personal description as to weight, height, complexion, color of eyes, color of hair and any marks of identification, etc.

"6. They must pay a fee of \$25.

"N. B.—Physicians complying with the above regulations, and who may enter the State between the regular meetings of the Board and desire to practice medicine in this State, may be permitted to do so by appearing before any member of the Board, paying a fee of \$10, said fee to be deducted from the fee exacted by the Board for a permanent license.

"Said temporary permit shall not be good longer than the beginning of the next regular meeting, at which time a permanent license will be issued, provided the applicant appears in person and pays the balance of the fee (\$15).

"Applicants presenting a diploma from a medical college rated by this Board as Class A, or from a medical college rated between 50 and 70 per cent. by the Council on Medical Education of the American Medical Association (*i. e.*, Class B), or a diploma issued prior to October 1, 1908, from colleges not included in either Class A or said Class B, but whose diplomas have been accepted prior to said date by the Board, must, in order to obtain a license to practice medicine in this State, comply with the following conditions:

"Applicants must satisfy the Board that they are twenty-one years of age and possess at least a fair primary education.

"1. They must furnish satisfactory proof of their identity and give satisfactory evidence of good moral character, as per application blanks to be obtained from the Secretary, Dr. F. A. Larue, 211 Camp Street, New Orleans.

"2. They must present in person their diploma.

"3. They must pay the examination fee (\$11).

"4. They must pass a satisfactory examination (75%).

"TEMPORARY PERMITS.—N. B.: Physicians desiring to enter the practice of medicine between the regular meetings can obtain a temporary permit to practice in this State by sending our application form, properly filled out, to the Secretary of the Board, and if found eligible, by appearing before any one member of the Board and by passing a satisfactory oral examination, paying a fee of \$5 and presenting his or her diploma. The temporary permit will only be good until the beginning of the next regular examination. The applicant will be credited with the \$5, provided he appears at the next regular examination."

Physicians receiving certificates from the State Board of Medical Examiners will please note that, in order to be legally qualified to practice in Louisiana, they must—

1. Record their certificates with the Clerks of the District Courts in the parishes where they reside (fee \$1) ; and,

2. Send these certificates to the Secretary of the State Board of Health to be registered and placed on file. There is no charge for registration, but, if a certified copy of the certificate is desired, it will be furnished for 50 cents.

The Board has adopted the following rules: "That any person who begins to practice medicine in this State without being duly legally authorized so to do, will not be granted a temporary permit subsequent to the first regular meeting of the Board after his beginning such illegal practice."

Applicants holding a diploma from a foreign reputable medical college and desiring to practice medicine in Louisiana will have to—

1. Present in person a diploma of a standing satisfactory to the Board issued by the Institute of Medical Education.

2. Proof satisfactory to the Board of the genuineness of the diploma presented.

3. Evidence satisfactory to the Board of the good moral character of the applicant.

4. Evidence satisfactory to the Board of the identity of the applicant with the person named in the diploma, and in the certificate of good moral character.

5. If the applicant presents a permanent certificate of examination by and from a State Board of Medical Examiners whose certificates are accepted by the Louisiana State Board, and complies with the other requirements named under 1, 2, 3 and 4, and that he has practiced medicine for at least one year since he obtained said permanent license, he may be permitted, at the discretion of the Board, to practice without being subjected to an examination by the State Board of Louisiana.

6. He must pay a fee of \$11. The fee where the examination is not held, as under No. 5, is \$25.

7. Temporary permit can be obtained on same basis as by applicants holding Class A or B diplomas.

The following is the list of medical colleges as rated by the Louisiana State Board of Medical Examiners, subject to revision by said Board, and is similar to the tentative list issued by the Committee on Medical Education of the A. M. A.:

CLASS "A"

ALABAMA.

1. Birmingham Medical CollegeBirmingham
2. Medical Department of the University of Alabama.....Mobile

CALIFORNIA.

3. University of Southern California, College of Medicine..Los Angeles
4. Oakland College of Medicine and SurgeryOakland
5. Cooper Medical CollegeSan Francisco
6. University of California, Medical Department.....San Francisco

COLORADO.

7. University of Colorado, School of Medicine.....Boulder
8. The Denver and Gross College of Medicine.....Denver

CONNECTICUT.

9. Yale Medical College.....New Haven

DISTRICT OF COLUMBIA.

10. George Washington University, Department of Medicine.Washington
11. Georgetown University, School of Medicine.....Washington

GEORGIA.

12. Atlanta College of Physicians and Surgeons.....Atlanta
13. Atlanta School of Medicine.....Atlanta
14. Medical College of Georgia.....Augusta

ILLINOIS.

15. Rush Medical College.....Chicago
16. Northwestern University Medical School.....Chicago
17. College of Physicians and Surgeons.....Chicago

INDIANA.

18. Indiana University School of Medicine.Bloomington and Indianapolis

IOWA.

19. Drake University, College of Medicine.....Des Moines
20. State University of Iowa, College of Medicine.....Iowa City

KANSAS.

21. University of Kansas, School of Medicine.Lawrence and Kansas City

KENTUCKY.

22. University of LouisvilleLouisville

LOUISIANA.

23. Medical Department of the Tulane University of Louisiana
.....New Orleans

MAINE.

24. Medical School of Maine.....Portland

MARYLAND.

25. University of Maryland School of Medicine.....Baltimore
26. Johns Hopkins' Medical School.....Baltimore
27. College of Physicians and Surgeons.....Baltimore
28. Baltimore Medical College.....Baltimore

MASSACHUSETTS.

29. Medical School of Harvard University.....Boston
30. Boston University, School of MedicineBoston
31. Tuft's College, Medical School.....Boston

MICHIGAN.

32. University of Michigan, Department of Medicine and Surgery
.....Ann Arbor
33. Detroit College of Medicine.....Detroit

MINNESOTA.

34. College of Medicine and Surgery, University of Minnesota
..... Minneapolis

MISSOURI.

35. University Medical College.....Kansas City
36. Department of Medicine of the University of Missouri.....Columbia
37. Washington University, Medical Department.....St. Louis
38. St. Louis University, School of Medicine.....St. Louis

NEBRASKA.

39. College of Medicine, University of Nebraska.....Lincoln and Omaha
40. John A. Creighton Medical College.....Omaha

NEW HAMPSHIRE.

41. Dartmouth Medical SchoolHanover

NEW YORK.

42. Albany Medical CollegeAlbany
43. University of Buffalo, Medical Department.....Buffalo
44. College of Physicians and Surgeons in the City of New York
.....New York
45. Cornell University, Medical College.....New York
46. Fordham University, School of Medicine.....New York
47. Long Island Hospital College.....New York
48. University and Bellevue Hospital, Medical College.....New York
49. Syracuse University, College of Medicine.....Syracuse

NORTH CAROLINA.

50. University of North Carolina, Medical Dept..Chapel Hill and Raleigh

OHIO.

51. Cleveland College of Physicians and Surgeons.....Cleveland
52. Medical College of Ohio.....Cincinnati
53. Miami Medical CollegeCincinnati
54. Western Reserve University, Medical Department.....Cleveland
55. Starling-Ohio Medical CollegeColumbus

PENNSYLVANIA.

56. University of Pennsylvania, Department of Medicine..Philadelphia
57. Jefferson Medical CollegePhiladelphia
58. Medico-Chirurgical College of Philadelphia.....Philadelphia
59. Woman's Medical College of Pennsylvania.....Philadelphia

SOUTH CAROLINA.

60. The Medical College of the State of South Carolina.....Charleston

TENNESSEE.

61. Vanderbilt University, Medical Department.....Nashville

TEXAS.

62. Medical Department of Fort Worth University.....Forth Worth
63. University of Texas, Department of Medicine.....Galveston

VERMONT.

64. University of Vermont, College of Medicine.....Burlington

VIRGINIA.

65. University of Virginia, Department of Medicine.....Charlottesville
66. Medical College of Virginia.....Richmond
67. University College of Medicine.....Richmond

CLASS "B"

ARKANSAS.

1. University of Arkansas, Medical Department.....Little Rock
2. College of Physicians and Surgeons.....Little Rock

DISTRICT OF COLUMBIA.

3. Howard University, Medical Department.....Washington

KANSAS.

4. Kansas Medical CollegeTopeka

LOUISIANA.

5. Flint Medical College of New Orleans University.....New Orleans

MARYLAND.

6. Woman's Medical College of Baltimore.....Baltimore
 7. Maryland Medical CollegeBaltimore

MISSOURI.

8. The Ensworth Medical College.....St. Joseph
 9. St. Louis College of Physicians and Surgeons.....St. Louis

NEW YORK.

10. New York Medical College and Hospital for Women.....New York

NORTH CAROLINA.

11. North Carolina Medical College.....Charlotte

OREGON.

12. University of Oregon, Medical Department.....Portland

PENNSYLVANIA.

13. Western Pennsylvania Medical College.....Pittsburg

TENNESSEE.

14. Chattanooga Medical CollegeChattanooga
 15. Tennessee Medical CollegeKnoxville
 16. College of Physicians and Surgeons.....Memphis
 17. Memphis Hospital Medical College.....Memphis
 18. University of Nashville, Medical Department.....Nashville
 19. University of Tennessee, Department of Medicine.....Nashville
 20. Meharry Medical CollegeNashville

TEXAS.

21. Baylor University, College of Medicine.....Dallas
 22. Southwestern University, Medical CollegeDallas

WISCONSIN.

23. Milwaukee Medical CollegeMilwaukee
 24. Wisconsin College of Physicians and Surgeons.....Milwaukee

PATHOLOGIST FOR FREEDMEN'S HOSPITAL.—The Civil Service Commission announces an examination on July 14, at the offices of the Pension Examining Surgeons, for the position of Pathologist to the Freedmen's Hospital, at Washington, D. C., at a salary of \$2,000 per annum. Further information may be had by addressing the Civil Service Commission, Washington, D. C.

INTERNATIONAL MEDICAL CONGRESS.—An American party is being organized by Dr. Charles W. Fassett, at St. Joseph, Mo., for which it is intended to arrange all details of expense and accommodation. A line to Dr. Fassett will bring further information.

THE JAMES CARROLL FUND.—About \$1,500 has been contributed by citizens of the State of Louisiana to assist the widow of Dr. James Carroll in relieving her homestead of the mortgage upon it. Of this sum, the Louisiana State Medical Society voted \$150; the New Orleans physicians, members of the Orleans Parish Medical Society, contributed about \$500, and other citizens, corporations, etc., gave the balance.

LOUISIANA STATE BOARD OF MEDICAL EXAMINERS.—The following doctors passed the Louisiana State Board of Medical Examiners at the last session: S. M. Blackshear, Robt. J. Enochs, J. T.

Prosser, I. F. Littell, R. D. Martinez, J. W. Murphey, F. T. Brown, R. O. Carter, M. A. Rush, E. T. Miller, J. L. Wade, John E. Lawton, M. V. Hargrove, Jr., A. H. Letten, W. M. Branch, J. F. Tanner, J. M. Adams, H. A. Tynes, J. B. Williams, J. H. Landrum, D. V. Donaldson, C. R. McDonald, A. J. Morat, T. A. Guillory, H. V. Jones, J. E. Bailey, P. S. Bailey, M. F. Morvant, J. H. Stevens, R. I. Vines, G. G. Fontenot, L. E. Larche, M. A. Watkins, C. C. Crawford, W. J. Eroche, J. M. Gorton, R. H. Fisher, A. J. Reynolds, D. E. Staton, A. E. Douglass, J. W. Scott, J. C. Michael, O. L. Kidd, W. L. Davis, W. B. Hunter, J. M. Oglesby, A. D. Long, D. M. Stevenson, C. H. Gulley, T. E. Wright, R. L. Williams, J. B. Rougon, R. M. Smith, F. Romaguera, B. A. Norman, T. B. Wilson, A. S. Cooper, A. S. J. Hyde, G. W. Faivre, R. C. Finley, J. L. Beyt, A. F. Hoge, P. G. Gamble, A. L. Whitmire, A. B. LaCour, W. P. Miller, C. Brewster, B. F. Green, C. C. Pardue, V. G. Yeager, J. C. Hardy, J. H. McGuffey, W. B. Allums, J. E. Wallace, G. P. Brock, S. D. Kearney, A. C. Brown, H. C. Watkins, W. F. Brooks, E. E. Lafferty, S. G. Wilson, T. A. Gunn, A. P. Hand, W. D. Phillips, H. P. St. Martin, C. A. Rew, J. F. Cook, W. W. Leake, H. W. Kostmayer, A. V. Veasie, J. A. Gaharan, C. J. Watterson, W. L. Miles, A. M. Gill, R. L. Riley, and S. H. Harris.

Licenses issued without examination: Dr. George Dock, Dr. R. L. Parrott, Dr. A. L. Carlton, Dr. Harry McNeal, Dr. James D. Toy, Dr. F. W. Whitney, Dr. Nellie Celestia Flint, J. F. Valentine.

MEDICAL ERA, OF ST. LOUIS, MO.—During July and August the *Medical Era*, of St. Louis, Mo., will issue its annual series of issues devoted to gastro-intestinal diseases. The July Number will take the usual bowel disorders of hot weather and the August will be devoted entirely to typhoid fever. These issues always attract considerable attention. Its editor will forward copies to physicians applying for same.

HISTORY OF YELLOW FEVER.—Mr. George Augustin, Assistant Secretary, Louisiana State Medical Society, Assistant Secretary-Librarian, Orleans Parish Medical Society, New Orleans, has just published a most comprehensive work on Yellow Fever. The price of this valuable book is \$6.00, and is sent postpaid on receipt of price. Address: George Augustin, 141 Elk Place.

DOCTORS AT THE A. M. A. MEETING.—Among those who attended the meeting of the American Medical Association held in Atlantic City in June were Drs. F. W. Parham, E. Denegre Martin, M. Feingold, C. Jeff Miller, H. D. Bruns, C. W. Allen, L. G. LeBeuf, J. Smyth, W. W. Butterworth, Charles McVea, S. K. Simon, R. Matas, O. Dowling, Lucien Landry, George Dock and E. M. Hummel. Dr. C. Jeff Miller was re-elected Secretary of the Section on Obstetrics and Diseases of Women, to serve for the ensuing year. The next meeting of the Association will be held at St. Louis, Mo.

DR. MATAS HONORED.—At the meeting of the American Surgical Association, held in Philadelphia the first week in June, Dr. Rudolph Matas, head of the Department of Surgery of the Tulane University, was elected President for the year 1909-10. The JOURNAL joins Dr. Matas' many friends in congratulating him on this deserved recognition.

PERSONALS.—Dr. Y. R. LeMonnier has been elected surgeon of the Soldiers' Home, to succeed the late Dr. Brewer.

Dr. L. J. Williams was recently elected Mayor of Melville, La.

Dr. Robert Conway Finlay, a recent graduate of the Medical Department of Tulane, left New Orleans recently for St. Louis, to serve as House Surgeon for the St. Louis Skin and Cancer Hospital for a year.

Dr. Will H. Woods has returned and opened an office for diseases of the eye.

Dr. I. W. Cooper, of Newmoon, Miss., has been appointed a member of the State Board of Health.

The doctors of New Orleans who are in Europe are: Dr. A. W. deRoaldes, Dr. Jos. D. Weis, Dr. R. Lyons, Dr. Geo. Dock and Dr. E. Ehlert.

Dr. H. E. Bernadas has left for Mexico City.

Dr. E. Kelly has been elected Secretary of the State Board of Health. Dr. Kelly succeeds Dr. Estopinal, who has gone to Cuba.

Mr. John B. Sinnott and Mr. T. Douglass have recently been appointed members of the Board of Administrators of the Charity Hospital, to succeed Messrs. Vincent and Craig, who resigned.

REMOVALS.—Dr. C. Reed has moved from Bienville, La., to Grace.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Bier's Hyperemic Treatment, by WILLY MEYER, M. D., and PROF. VICTOR SCHNIEDEN. W. B. Saunders Company, Philadelphia and London.

The first lines of the introduction to this book embody the value of its purpose: "The physician who intends to make use of artificial hyperemia must first have a clear idea as to what he wishes to accomplish with it." The pages which follow try to suggest the indications and the ways of fulfilling these.

While hardly more than an extended brochure, the work of these two distinguished authors very graphically presents the whole subject, from the simple reactions caused by bandage congestion to the profound obstructive hyperemia brought about by apparatus of special construction. Illustrations are numerous and excellent, and the typographic arrangement readily presents the purpose in a way to attract the attention and interest of the student reader.

DYER.

Essentials of Medicine. A Text Book of Medicine, etc., by CHARLES PHILLIPS EMERSON, M. D. Illustrated by the author. J. B. Lippincott Co., Philadelphia and London.

Preliminary to the presentation of the particular organ to be discussed from the medical side, the author carefully introduces the reader to the normal organ and its structures, enough to make what follows clear. No attempt is made at exhaustive treatise of any subject, but for a guide and a most readable one, this book is excellent. The pages devoted to infectious diseases are full of points of diagnosis, to which are added careful commentaries on the treatment. Altogether a book worth while.

DYER.

A Dictionary of Medical Treatment. By ARTHUR LATHAM, M. A., M. D. (Oxon.). M. A. (Cantab.), F. R. C. P. (Lond.) P. Blakiston's Son & Co., Philadelphia.

This is not a formulary, but what its title names it, a dictionary of medical treatment. Here are found a list of many diseases, and with each a brief outline of the etiology, symptoms and treatment. For the most part well compiled and of service, particularly to the busy practitioner who wishes running information on unusual diseases.

DYER.

Emergency Surgery for the General Practitioner. By JOHN W. SLUSS, A. M., M. D. P. Blakiston's Son & Co., Philadelphia.

In a handy volume of about 600 pages the practical, systematic outline of measures for emergencies in surgical experience is well given by the author. Illustrations are numerous, well selected and distributed in a text which is as complete as it is possible to make it in the pages used. The valuable suggestions, the simple and direct manner of making them, and, above all, the restrictions of the work to its subject of emergency surgery and all that means makes this a valuable addition to the working library of every practitioner.

DYER.

Diseases of the Skin. By A. H. OHMANN-DUMESNIL, A. M., M. E., M. D., Ph. D. Third edition. C. V. Mosby Medical Book and Publishing Company, St. Louis.

The author has considerably increased the size of this over former editions and has brought the subject matter up to date. The text is arranged in groups of diseases in accordance with the classifications followed by most English works on skin diseases. Like most other American textbooks the contents reflect largely the personal observations and experiences of the author, and in this the value of the book is enhanced, as in many places the views of the author have given practical suggestion to the consideration of particular diseases. The illustrations are good and the advice regarding treatment is well presented.

DYER.

Text-Book of Embryology. By FREDERICK RANDOLPH BAILEY, A. M., M. D., and ADAM MARION MILLER, A. M. Wm. Wood & Company, New York.

No pains have been spared to make this book a complete text on embryology. The 515 illustrations are perfectly presented and carefully correlated with the text. The systematic study of the cell is followed by the presentation of each tissue evolution and its development into its final organ. Comparative studies among groups of animals are made with the human as the objective. The text is a complete offering to the student and throughout academic references are listed for those particularly interested in the investigation of special subjects. Altogether a standard text.

DYER.

Orthopedic Surgery for Practitioners. By HENRY LING TAYLOR, M. D., New York. D. Appleton & Co., New York.

This excellent work fully sustains the high reputation of the author and is essentially a book for the general practitioner. The print is large and clear and the style comprehensive. It deals briefly but thoroughly with each subject and the illustrations help to demonstrate the text. The author takes it for granted that his readers are all beginners in this branch of surgery and gives some very good advice in the beginning as to the importance of careful and systematic examinations in order to reach a diagnosis. Such suggestions as can best be carried out in treatment are given. The work is intended to aid the practitioner in the management of such cases as cannot reach a specialist and must have relief. The work deserves to become popular and should be a part of every country practitioner's library.

MARTIN.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1909.

Progressive Medicine (Vol. II., June, 1909), by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D.

C. M. MOSBY CO., St. Louis, 1909.

Hand-Book of the Diseases of the Rectum, by Louis J. Hirschman, M. D. *Vaccine and Serum Therapy*, including also a study of infections, theories of immunity, opsonins and the opsonic index, by Edwin Henry Shorer, B. S., M. D.

D. APPLETON & CO., New York and London, 1909.

Legal Medicine and Toxicology, by R. L. Emerson, A. B., M. D.

THE YEAR BOOK PUBLISHERS, Chicago, 1909.

The Eye, Ear, Nose and Throat, Casey A. Wood, C. M., M. D., D. C. L.; Albert H. Andrews, M. D.; Gustavus P. Head, M. D.

SOUTHERN MEDICAL PUBLISHING COMPANY, Baltimore, 1909.

Medical and Minor Surgical Diseases of Women, by Samuel Lyle, M. D.

MISCELLANEOUS.

Where Is the Spirit of '76? by Frank Lydston, M. D.

History, Effect and Condition of the Massachusetts Milk Standard, by Charles W. Wood.

Thirty-first Annual Report of the Department of Public Health. (Georgia, '09.)

Transactions of the American Pediatric Society. (Twentieth Session, Vol. XX.) E. B. Treat Company.

Digest of Comments on the Pharmacopœia of the United States of America (Eighth Decennial Revision for the Board), by Murray Galt Motter and Martin I. Wilbert. (Washington Government Printing Office, 1909.)

Nineteenth Annual Report of the Eye, Ear, Nose and Throat Hospital of New Orleans, La., Jan. 1, 1908, to Dec. 31, 1908. (Palfrey-Rodd-Purcell Co., Ltd., New Orleans.)

American Medicinal Barks, by Alice Henkel. (Washington Government Printing Office.)

Reprints.

A Presentation of the Subject of Artificial Infant Feeding for the General Practitioner, by Godfrey R. Pisex, M. D.

The Differential Diagnosis of Scarlet Fever, with Special Reference to the Scarlatiniform, by Godfrey R. Pisex, M. D.

Sacral Suspension of the Uterus--A New Technic, by John Van Doren Young, M. D.

Aesthetic Alimentation, by Geo. M. Niles, M. D.

(1) *The Tendency to Consumption*; (2) *The Kidney in Acute Infections*; (3) *The Symptoms and Diagnosis of Incipient Tuberculosis*; (4) *Insects and Disease*; (5) *Imitation, Suggestion and Social Excitements*; (6) *The Use of Tobacco by the Immature*, by John B. Huber, A. M., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR MAY, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	4	2	6
Intermittent Fever (Malarial Cachexia)	3	3	6
Smallpox.....			
Measles			
Scarlet Fever.....	16	1	17
Whooping Cough.....			
Diphtheria and Croup.....	4		4
Influenza	2	2	4
Cholera Nostras.....	1		1
Pyemia and Septicemia	3	3	6
Tuberculosis.....	34	49	83
Cancer.....	23	5	28
Rheumatism and Gout		1	1
Diabetes	1	1	2
Alcoholism	1	1	2
Encephalitis and Meningitis.....	6	2	8
Locomotor Ataxia.....	2		2
Congestion, Hemorrhage and Softening of Brain.....	11	5	16
Paralysis	4		4
Convulsions of Infants	1		1
Other Diseases of Infancy	23	10	33
Tetanus.....		2	2
Other Nervous Diseases	2		2
Heart Diseases.....	41	32	73
Bronchitis	4		4
Pneumonia and Broncho-Pneumonia.....	16	15	31
Other Respiratory Diseases.....	1	4	5
Ulcer of Stomach.....			
Other Diseases of the Stomach	1	5	6
Diarrhea, Dysentery and Enteritis.....	42	21	63
Hernia, Intestinal Obstruction.....		1	1
Cirrhosis of Liver.....	15	3	18
Other Diseases of the Liver	5		5
Simple Peritonitis		1	1
Appendicitis.....	4		4
Bright's Disease	25	21	46
Other Genito-Urinary Diseases.....	4	3	7
Puerperal Diseases	4	1	5
Senile Debility.....	7	5	12
Suicide	5		5
Injuries.....	28	17	45
All Other Causes.....	32	18	50
TOTAL.....	375	234	609

Still-born Children—White, 22; colored, 21; total, 43.

Population of City (estimated)—White, 265,000; colored, 97,000:
total, 362,000.

Death Rate per 1000 per annum for Month—White, 16.98; colored,
28.84; total, 20.18.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.93
Mean temperature 74.
Total precipitation 4.61 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

VOL. LXII.

AUGUST, 1909.

No. 2

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

A Plea for the Systematic and Universal Examination of School Childrens' Eyes, Ears, Noses and Throats.

By FRANK ALLPORT, M. D., Chicago, Ill.

In presenting a paper on the eyes and ears of school children the magnitude of the subject should first be considered in order to emphasize its importance.

There are in the United States about 20,000,000 public school children or about 20% of the entire population. These children average 150 days in school each year.

There are nearly 500,000 public school teachers in this country.

About \$850,000,000 are invested in public schools, and about \$440,000,000 are annually expended for keeping these schools in useful operation.

There are in the United States about 300,000 blind people, supported by the State at an annual expense of about \$15,000,000.

Most of these people would not have become blind if their disease had been detected early in life.

It has been recently ascertained in London that whereas it only costs £4 or £5 per annum to support a normal child, it costs about £23 per annum to support a deaf child.

About 50,000 American children are annually removed from school on account of physical inability to continue at work. A large proportion of these children suffer from some eye or ear defect.

About 8,000,000 school children suffer from some eye defect, and about 8,000,000 from some ear, nose or throat defect.

In other words, about 16,000,000 children, or 80% of the entire public school population, suffer from some eye, ear, nose or throat defect, which more or less retards their school progress, and a vast majority of these diseases could be cured or relieved if detected and placed under proper medical supervision. Dr. F. J. Mann, of Poughkeepsie, Inspector of Schools, recently found that every truant in that city had some radical defect of the eye, ear, nose or throat.

If the foregoing facts are true, and I believe they are, then the subject is one of great magnitude and one quite worthy of the careful consideration of sociologists, educators, school and health boards, physicians, parents and lawmakers. The vast amounts of money invested in school properties and annual budgets, cannot be well expended unless the children are in a proper physical condition to receive presented instruction. Unless children receive and absorb presented instruction they do not become properly educated. Unless children are properly educated they do not become useful citizens, and are apt to develop idle and criminal tendencies and become financial and moral charges upon the State. The logical conclusion, therefore, is if it is deemed advisable to materially mitigate idleness and crime, and to increase the ranks of self-respecting and self-supporting men and women, then educate them, and if physical defects hamper their educational progress then eliminate, as far as possible, such physical defects, and allow the children at least the physical possibility of absorbing the beneficial opportunities of our public schools. There is much to be said concerning the specific and intimate connection existing between a child's gen-

eral health and his studies, but as my portion of this symposium refers only to the eyes and ears of school children, I shall be compelled to limit myself to this phase of the subject, remembering, however, that this topic is by no means restricted in its character for, with the exception of mental capacity, nothing is so essential to the acquirement of an education as good sight and hearing. A child who cannot see well at a distance is debarred from participation in the important blackboard and other distant demonstrations which play such an essential role in modern educational methods; a child who cannot study without headaches or fatigue soon forms a great distaste for books and acquires habits of idleness, with all its entailed consequences, while a child whose vision is generally impaired by cataracts, corneal scars, intra-ocular diseases, etc., becomes almost a hopeless proposition so far as a decent education is concerned. The difficulty which a deaf child undergoes in the effort to acquire an education must be apparent to everyone, while a child with discharging and foul ears is not only in danger of death, but is an infective menace to the entire school.

Children of this kind, with serious eye, ear, nose or throat defects, find themselves at great disadvantage in their school. Owing to their physical infirmities they cannot easily take advantage of presented instruction and, consequently, fall behind their fellow students, are thought to be stupid, idle or vicious, are punished for their retarded progress, become discouraged and lose interest in their work, become truants, form bad associations, and easily drop into pauperism and crime, and undoubtedly form the major portion of the inmates of reform schools, jails, penitentiaries, and charitable institutions.

It must, therefore, be admitted that education is one of the strongest factors in the lessening of poverty and crime, and that to education we must largely look for the upbuilding and development of strong resolute manhood and womanhood which must ever be the hope and promise of the Nation's succeeding generations. Is it then asking too much of educators and lawmakers to see that the physical condition of children is such as to render easily possible the absorption of the educational offerings of our public schools, for without such physical capacity it must become difficult or impossible to uplift the child, mentally and morally, and to take ad-

vantage of the country's immense expenditures in the interest of education and, higher still, to take advantage of the great opportunity extended to our public schools, of turning out each year young men and young women well adapted and equipped for the great battle of life and for the general improvement and betterment of our Fatherland and its conditions.

Our public schools are a public trust, not in the offensive sense of the word, but they are a trust confided by the people to certain officers into whose hands are entrusted the welfare of our schools and their pupils. These officers voluntarily assume their duties; they undertake to manage the schools in the best interests of the children, the people and the Nation. They require attendance and establish meeting places where they stand in *loco parentis* and where the children pass the major portion of their waking hours. They should, then, not be satisfied with the mere extending forth of knowledge to the young and budding mind, but should accompany it with all the solicitude and care extended to fortunate children by loving and watchful parents, for it must be remembered that many children in our public schools are fatherless or motherless or, Heaven knows, might better be, and will receive all the love and kindness they are likely to know behind the portals of our public schools. I should not be misunderstood as criticising our schools or of accusing its officers of neglect or carelessness for such, believe me, is not the case; enormous strides have been made along these and all other lines during the last few years, but much remains to be done and it is to be hoped and believed that the same degree of energy and enthusiasm that has already inspired the accomplishment of so much good work in the past, will be the means of accomplishing that work in the future, which must be the aim and ambition of all those having the best interests at heart of the children, the schools and the Nation.

The systematic examination of pupils by medical school inspectors and the efficient co-operation of school nurses is one of the greatest advancements that has ever been made in the direction of improving the physical condition of school children; enormous benefit has resulted therefrom. Their labors, however, can be greatly heightened by delegating to the school teachers themselves the practical examination of the eyes, ears, noses and throats of the chil-

dren. Fortunately, this is a field that can be efficiently covered by the teacher, for, while after the examination the teacher will not, and should not even try to make a diagnosis, sufficient data will have been obtained to enable her or him to know that the child has passed either a satisfactory examination, or has some defect which shall be diagnosed and treated by the physician to whom the case becomes ultimately referred. This examination consists in the ascertaining of a few simple facts as follows:

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Does the pupil fail to read a majority of the letters in the number XX line of the Snellen's test types with either eye?
3. Do the eyes and head habitually grow heavy and painful after study?
4. Does the pupil appear to be "cross-eyed"?
5. Does the pupil complain of ear-ache in either ear?
6. Does pus or a foul odor proceed from either ear?
7. Does the pupil fail to hear an ordinary voice at 20 feet, in a quiet room, with either ear?
8. Is the pupil frequently subject to "colds in the head" and discharges from the nose and throat?
9. Is the pupil an habitual "mouth-breather"?

If an affirmative answer is found to any of these questions the pupil should be given a printed card of warning to be handed to the parent, which should read as follows:

"CARD OF WARNING TO PARENTS—After due consideration it is believed that your child has some eye, ear, nose or throat disease for which your family physician or some specialist should be at once consulted. It is earnestly requested that this matter be not neglected."

It will be observed that these cards are not obligatory in their character and that they leave the choice of a physician with the parent. If the matter is not attended to the teacher or the school nurse should take the matter persistently in hand and endeavor to persuade compliance with the plan. The examination should be made early in the school year, say, in September, in order to bring the idea to completion and watch the results before the end of the school year. To this end it is urged that a certain date be set aside each year for these examinations, and that nothing shall

be allowed to interfere with their performance. It is recommended that each teacher examine the pupils in her own room, not only because she is familiar with the children and their complaints, but because it sub-divides the work, so that it does not become a strain upon any one person; the result can be handed to the Principal who should retain them for future references. I advise that a certain early date in the Fall be set aside for these examinations and inasmuch as a school room rarely contains more than 40 pupils, and that each examination can be easily made in five minutes, an entire room can be examined in a few hours. In this way an entire city, no matter how large can be easily finished in less than a day's time and the benefits which must follow are bound to be enormous. The expense is so slight as all that is necessary is the Snellen's test-types with teachers' instructions attached, together with the warning cards to parents and very simple record blanks. A city like Chicago, for instance, can be annually tested by an expense which should not exceed \$500.00 per annum, a truly insignificant amount, when one considers the great benefit which must inevitably follow. Teachers do not need to feel their incapacity to make these tests, for the questions are of the simplest character, and yet when analyzed will be found to be so comprehensive in character as to detect at least 90% of serious eye, ear, nose or throat defects. Neither is it a tax on a teacher's time or patience, for the tests are perfectly easy to make, can be done in a few hours and the great benefit which will follow, in transforming apparently stupid children who cannot see or hear well, into ordinarily bright children, will amply repay the teacher for what little work she has done and by such transformations, will inevitably and greatly lighten her future labors. This plan, which I proposed years ago, is now in quite general use throughout the United States, and has been endorsed by the American Medical Association, by most of the State Medical Societies, Boards of Health and Education, and is a law in Vermont, Connecticut and Massachusetts. I here give the Vermont law, which is the best one that has yet been passed:

Section 1. 'The State Board of Health and the superintendent of education shall prepare or cause to be prepared suitable test cards, blanks, record books, and other needful appliances to be used in testing the sight and hearing of pupils in public schools, and

necessary instructions for their use; and the Superintendent of Education shall furnish the same free of expense to every school in the State. The superintendent, principal, or teacher in every school during the month of September in each year shall test the sight and hearing of all pupils under his charge, and keep a record of such examination according to the instructions furnished, and shall notify in writing the parent or guardian of every pupil who shall be found to have any defect of vision or hearing, or diseases of eyes or ears, with a brief statement of such defect or disease, and shall make a written report of all such examinations to the Superintendent of Education as he may require.

Section 2. The State Auditor is hereby directed to draw his order on the State Treasurer for such sums and at such times as the Superintendent of Education, with the approval of the State Board of Health, may require to carry out the provisions of this act. The total expense under this act shall not exceed six hundred (\$600.00) dollars in any biennial term ending June 30.

Section 3. This act shall take effect July 1, 1905.

A similar law will probably be passed this winter in Illinois, Indiana, Ohio, Colorado, North Dakota, California and other States. It *should* become a law in every State in the Union, for these examinations should be compulsory in character and every school child should participate in its benefits. May I beg for the assistance of this Society and the profession of this State, in securing the passage of this law at Springfield this winter. Senator Charles Billings has the matter in charge.

In conclusion, and bearing directly upon the subject, not only of a child's general health, but also of his ocular condition, I desire to protest against the too frequent intellectual forcing of children, to satisfy the ambition of the child himself, his parent or his teacher. This process becomes particularly objectionable when it occurs as it frequently does during the period of adolescence, when the nervous system of the child is often taxed to its utmost, and when his studies and indoor confinement should be reduced to a minimum. It is at this time that we frequently see not only generally broken down children, but also children whose eyes are often in an extremely troublesome and sometimes dangerous condition, and it is at this time that extra care and solicitude must be main-

tained that the seeds of general and ocular invalidism be not planted.

**1. Severe Deformity, Result of Anterior Polio-Myelitis.
2. Plastic Operation on Heel. 3. An Unusual
Case of Inguinal Hernia. Reports of Cases.***

By CARROLL W. ALLEN, M. D., New Orleans.

I.

I. SEVERE DEFORMITY, RESULT OF ANTERIOR POLIO-MYELITIS—

This case is interesting from the extreme degree of deformity with extensive trophic ulcerations resulting consequent upon the disease in early childhood.

The patient, aged 17, gives a fairly good account of his sickness as told him by his mother, which occurred when he was about 3 or 4 years old.

The paralysis occurred immediately afterwards and the ulcerations some years later. While the photograph gives a good idea of the condition it is not to be compared with the striking appearance of the deformities as presented by the patient. His physical development down to the paralyzed parts is unusual for a boy of his years, and the abrupt commencement of the paralysis makes the appearance more striking. The left thigh is no larger than a man's wrist, while the leg shows extensive ulcerations down to the bone which is exposed and carious in many places, with foul fungus granulations.

The leg on the right side is no larger than a broom stick and shows the scars of previous ulcerations.

Both feet show a marked degree of talipes, the right shows scars of an earlier operative attempt at correction.

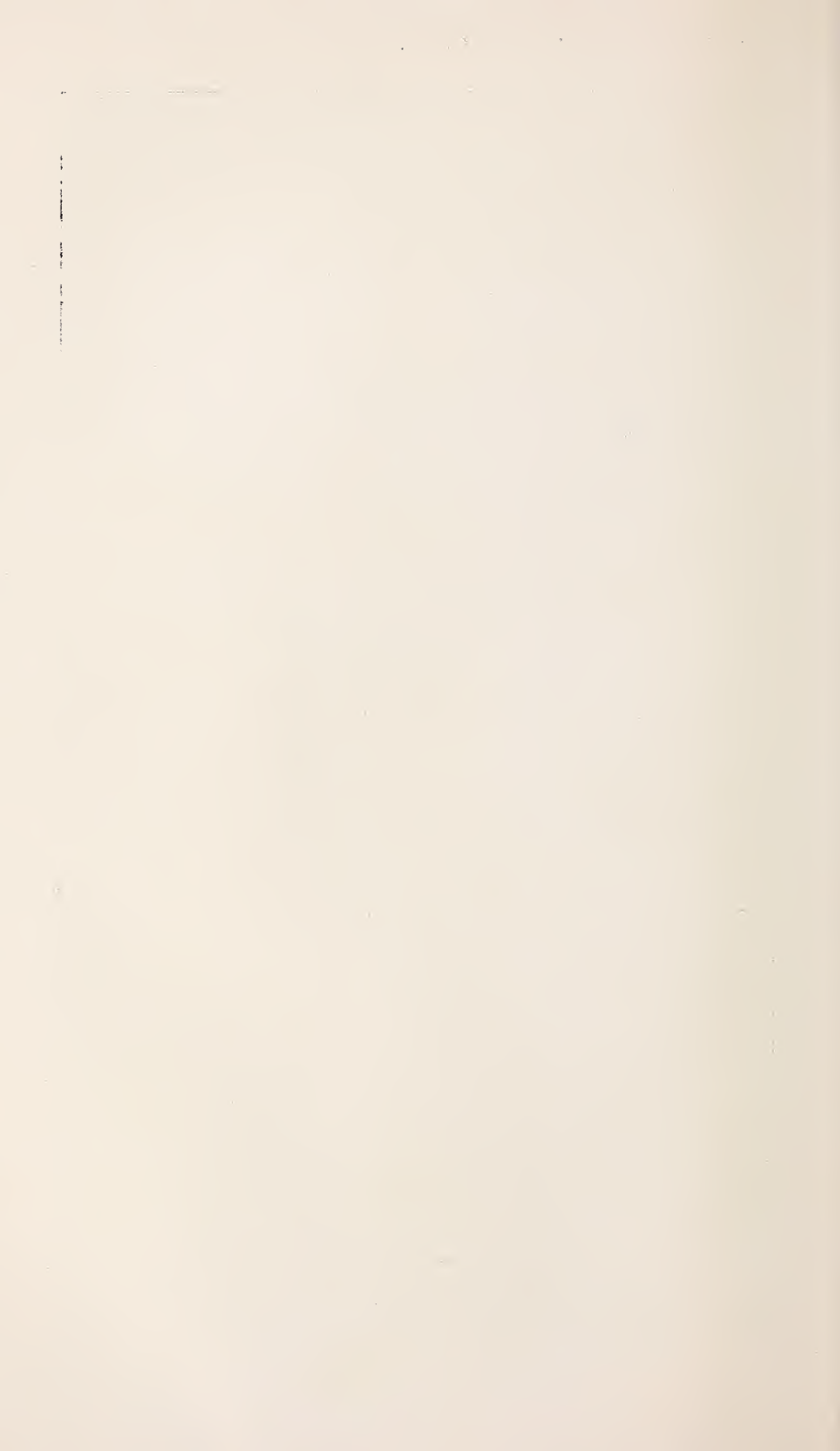
II.

II. PLASTIC OPERATION ON HEEL—Mr. H., *aet.* 30, while hunting last November dropped his gun on the back of his heel blowing away almost the entire os calcis and part of the astragalus and making an enormous wound through to the plantar surface. Surgical attention was received and an effort made to close the gap, but without avail, a large and deep ulcerating wound resulting.

*Read before Orleans Parish Medical Society, April 26, 1909.



ILLUSTRATING DR. ALLEN'S PAPER.



When first seen by me about six weeks ago the wound was about $2\frac{1}{2}$ by $3\frac{1}{2}$ inches and about $1\frac{1}{2}$ inches deep. A skiagraph showed the injury to the os calcis and astragalus, but a small part of the os calcis was left as a thin spicule of bone projecting posteriorly to which the tendo achillis was attached. Many shot were seen imbedded in the soft parts.

After some attention the wound was gotten into a fit condition for operation. The problem which now presented itself was not altogether an easy one.

A resection permitting the soft parts to come together would have destroyed what was left of the structural supports of the foot at this point, including the remains of the os calcis to which the tendo achilles was attached; as well as materially shortening the heel and crippling the patient; consequently this procedure was not to be thought of.

Thiersch grafts were equally unsuited; they would not take on a concave surface on the kind of granulations presented, and are further useless on all pressure points. Consequently, the Tagliacozzian plan of flap transplantation was decided upon, and on April 7, at Hotel Dieu, assisted by Dr. Gelbke, the wound was prepared and a large, thick flap was lifted from the opposite thigh. Commencing in front, just above the knee and extending up the thigh about six inches, the flap was about $2\frac{1}{2}$ inches wide and extended down to the fascia lata. The flap was left attached at its upper end and the lips of the wound from which it had been lifted approximated by silkworm gut sutures.

The leg on the injured side was then flexed and crossed so that the heel lay just under the prepared flap, which was then fixed into the margins of the wound on the heel with silkworm gut sutures, leaving the pedicle free. The foot was then firmly bandaged to the thigh and fixed so that it could not be moved. The flap took nicely, and was allowed to remain in this position for two weeks, by which time it had become firmly united with the heel; the pedicle was then divided and the limbs separated. The second day after dividing the pedicle the transplanted flap seemed to have suffered some traumatism, possibly in the patient's sleep. It, however, survived this injury well, and is now united firmly to its new position.

The object in reporting this case is to bring forward this method of transplanting tissue to fill losses in the soft parts, especially about pressure-bearing surfaces. Thiersch grafts, as we know, when used in such locations, become firmly attached to the fibrous tissue beneath them, and, having no subcutaneous areolar tissue, do not glide and move on the underlying parts when subjected to pressure and friction. This leaves them liable to easy abrasions, when they are prone to ulcerate, even a long while after they have healed soundly. This we frequently see when they are used on old ulcers of the leg.

The Wolfe-Krause graft, while including the subcutaneous areolar tissue, and originally designed to overcome the necessity of using a pedicle, is very uncertain in taking, particularly if the least infection exists in the wound into which it is planted, which is certain to be the case in granulating wounds following injuries.

The method adopted overcomes all these disadvantages and uncertainties, and is admirably suited to filling gaps in the soft parts about the foot, heel, ankle and lower part of the leg. The enforced crossing of the leg for about two weeks is usually very easily borne; this case stood it with practically no complaint.

It is better to take the flaps from the thigh than below the knee, for in the thigh we have the tough, thick skin well used to pressure with a good subcutaneous padding, and the resulting gap is more readily closed by approximation, and, if it could not be closed, the scar would be much less likely to be ulcerated and give future trouble in later years than if it were situated below the knee.

While the wounds in this case have not yet healed soundly, they have advanced far enough to insure the success of the procedure.

III. AN UNUSUAL CASE OF INGUINAL HERNIA.—H., *æt* 81. Markedly arterio-sclerotic, but otherwise apparently normal. Enormous inguinal hernia of left side, reaching to knee, of twenty-five years' duration; has not been reduced for years. The patient was informed of the danger of operation in one of his years, but persisted that he could not live that way, and insisted upon relief. Accordingly, on Sept. 16, 1908, operation was performed and the sac found to contain most of the small intestines with its mesentery, which was much hypertrophied and thickened, and almost the entire large intestine, the cecum and appendix, ascending

colon, transverse colon, splenic flexure, descending colon and sigmoid. The only part of the large bowel which was not in the sac was the hepatic flexure. In other words, almost the entire alimentary canal below the stomach was ptotic and contained in the sac. The colon everywhere seemed to have an enormous mesentery, which could be traced back to the post-abdominal wall, where it seemed to have been pulled up from its normal bed, much resembling the early embryonic condition when the colon has a long mesentery and is attached near the middle line. The length of the mesentery of the small intestine can be judged from the fact that most of the small intestine was in the bottom of the sac near the knee, and the mesentery had to reach from its fixed attachment in the abdomen to this point.

The mere presence of the appendix in the sac of a left inguinal hernia is of interest; it has frequently been noted, but is far from common.

The only difficulty encountered in the operation was the reduction of the bowel within the abdominal cavity; its long absence from the cavity had caused the abdominal walls to shrink and the cavity to be much reduced, and it was only by persistent effort and the use of long retractors to raise the abdominal walls that reduction was finally accomplished. The hernial opening was then found to be as large as the fist and extended from the pubis to the ant. sup. spine of the ilium.

The opening was closed by thoroughly imbricating the adjacent soft parts. The abdomen, at the completion of the operation, looked quite distended, owing to its being forced to contain the replaced intestines.

The final termination of the case was unfortunate, the patient dying the next day from pulmonary edema.

Amebic Dysentery.*

By GEORGE DOCK, M. D., New Orleans.

It is just about half a century since Lambl described the presence of amebæ in human feces, and thirty-five years since Loesch described and figured them, and used them in animal experiments.

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Since then an enormous amount of work has been devoted to the study of the parasites and the hosts that harbor them, but our knowledge is still uncertain and fragmentary. In such a case it is worth while, occasionally, to take stock of our actual knowledge, in order more clearly to apply it in practice and to lay plans for further advances on the unsettled problems.

The disease now generally called amebic dysentery is a chronic diarrhea of the most typical kind, so far as duration is concerned. As has often been pointed out, it is not always a dysentery in the usual clinical sense, nor does it always show the symptom of diarrhea at all times in its course. In some cases it is characteristically dysenteric, with frequent stools, containing mucus, pus, blood and sloughs; associated with griping or colicky pain, tenderness, tenesmus, fever and prostration, sometimes nausea and vomiting. Such cases may end in death under typhoid symptoms within a few days or a week or two. More frequently the disease is protracted over many months or years, during which there are periods of diarrhea of varying intensity and duration. Sometimes there are remissions, with stools normal in number and character; or constipation. At intervals attacks come on, sometimes as the result of error in diet, sometimes from exposure to cold, not necessarily severe, but sometimes without obvious cause, in which there may be dysenteric stools, from a few to thirty, fifty, or even a hundred or more per day. Some of the cases go for months with two or three unformed stools a day, especially if under constant palliative treatment. In these the stools resemble those of some other chronic diarrheas rather than those of dysentery in the common acceptation, especially those of intestinal indigestion, being large, mushy, often foamy or developing excessive fermentation under proper conditions, and not showing, to the naked eye, the more characteristic elements of dysentery. The really typical amebic stool is usually small, soft or partly formed, partly watery, varies in color according to food and medicine, and has but little odor. It is chiefly remarkable for showing small bits of mucus, stained a pink or red color with recent blood, and small collections of pus, gray or yellow. At times, and especially when a severe ulcerating process is going on, bits of more or less necrotic epithelium can be seen, usually like small bits of thread, but sometimes in patches

of considerable size. Masses of necrotic epithelial cells, more or less altered in form, can often be found.

Aside from the intestinal symptoms, the patient in the very chronic cases may show very little abnormal. He is likely to be thin, even if living well; is often sallow and sometimes pale, but may have a good blood-count and hemoglobin index. He may be able to keep up an almost normal amount of physical and mental work, as can be seen especially in army surgeons, hospital corps men, or many civil servants and others in the tropics. At any time, however, he may get a severe exacerbation, or develop an abscess of the liver, or infection of some other organ.

The anatomic changes vary much in extent in various cases, but have a marked similarity as regards individual lesions. This is particularly true of chronic cases, as the acute ones are modified by swelling, edema and diphtheritic processes. In the chronic cases the characteristic feature is the presence of ulcers of varying size and outline, and with overhanging edges, extending usually to the submucosa, but sometimes to the inner or outer muscular layer, or even the serosa. The ulcers vary much as regards the part and extent of bowel affected. The small intestine is hardly ever involved. The appendix is in a small proportion. Most frequently the cecum or the cecum and ascending colon are affected, less often the other flexures and the rectum, rarely the whole length of the colon. It is not necessary at this time to speak more in detail of the anatomic changes.

The most remarkable fact in the disease is the presence of animal parasites belonging to the genus *ameba*, in all parts of the world in which the clinical picture is encountered, chiefly in the tropics, as our troops and others have learned in the Philippine Islands, very extensively in the Mississippi Valley and as far North as Boston and Chicago, and in many parts of the Eastern Hemisphere. The *amebæ* are found in the stools, in the granular and necrotic material in the intestinal ulcers, in the liver abscesses that occur to a large extent in amebic dysentery, or in other localizations of the process. In the liver abscesses they usually occur, so far as we can now determine, without other germs, and so suggest the pure culture that with constant occurrence in disease is such strong evidence of pathogenicity. If material containing such *amebæ* is fed to animals, dogs and cats being the usual subjects, or

injected into the bowel, an ulcerative disease is produced, with similar amebæ in turn. But on the other hand, amebæ are found in the stools or intestines of people who have no clinical or anatomic evidence of dysentery or enteritis, or in quite different diseases, such as the ulcerations of malignant disease, or even in people who have no signs of diarrhea at the time or for months or years afterwards. The latter point is necessary to mention, because absence of symptoms when amebæ are found would not suffice to prove absence of local disease. Not only on the ground of analogy, but from actual observations, it may be accepted as true that there may be considerable ulceration, as in the cecum, without symptoms, so that if there were no other facts in the way, we should have to assume that the finding of amebæ indicated ulceration. But the conditions are not so simple. Before taking them up I wish to digress a little and to speak of the finding of amebæ in normal individuals. In my opinion this has been exaggerated, on the ground of Schuberger's observations. We can admit, with Craig, that amebæ can often be found in the feces of healthy people in certain localities, especially after the administration of saline cathartics. But in some localities such parasites are very rare, as I found in Michigan, and even in New Orleans my observations so far have been almost wholly negative.

A way out of the difficulty was made by the suggestion that there are various species of amebæ, some pathogenic, others harmless. This was investigated by many observers, and it became clear from the work of Jürgens, and especially Schaudinn and afterwards Craig, that at least two species can be distinguished, so far as the present methods permit us to determine. These are now known by the names given by Schaudinn, *Entameba histolytica* and *Entameba coli*. The former is characterized not only by its greater size, a feature not always trustworthy, but especially by its greater activity, throwing out broad strong pseudopods and taking in red blood corpuscles in great numbers, its indistinct nucleus, and its greenish tint and peculiar, refracting ectoplasm. The *Entameba coli* does not reach so great a size, looks more transparent or delicate, and does not show such active ameboid movement, nor does it engulf red blood cells. The staining reactions of the two organisms show certain differences in the structure of the nucleus and protoplasm. Some of the earlier observers described several other species of am-

ebæ in human feces, but without convincing the rest of the world that the differences were really specific. Recently, Viereck has described under the name *Entameba tetragena* (*E. Africana*, Hartmann), what he takes to be a new species in Africa and South America, and within a few months, Noc has announced another, in the dysentery of Cochin China. All of these organisms labor under the difficulty that an exact classification is still impossible on account of the difficulty surrounding the study of their complete life history. Much time and ingenuity have been devoted to the cultivation of amebæ. Those who think they have succeeded admit the morphology and functional characteristics, especially the pseudopodial features, of amebæ in culture vary greatly from those in natural conditions, and many others believe that the pathogenic variety has never been cultivated, but that the cultures are those of saprophytic amebæ accidentally taken into the intestine. In this connection we have the most pressing problem connected with dysentery. An allied one is the question whether the amebæ act alone in causing the various lesions with which they are associated, or whether other germs, especially bacteria, are concerned. This must be worked out in each locality, since we cannot assume that germs like the bacilli of dysentery are ubiquitous, though they may be very important in some.

Although the pathologic relations of the amebæ are so uncertain, the reverse is true of their diagnostic relations. When we find in the feces amebæ with the characters of the *E. histolytica* we know we have before us some form of enteritis as mentioned above, with all its possibilities. In each case we have the further task of ascertaining how severe and how extensive the affection is, and whether it presents any evidence of complication, as well as the usual routine examination of all the patient's organs. The examination of the stool is usually the first to be made, and it will often be positive at once. The stool should be examined as soon after it is passed as possible. In cold weather it should be passed into a warmed vessel, or the glass slides warmed. It is characteristic of the pathogenic amebæ, however, to retain their motion for long periods, three or four hours, at room temperature, even in cold weather. But the stools may be negative and the amebæ present nevertheless. This is especially likely to occur when the feces are formed, the masses passing by the mucus containing the parasites

without causing their excretion. In such cases a saline laxative, like Carlsbad salts, should be given. In many cases the best results are obtained by passing a rectal tube, or a proctoscope, and examining the mucus obtained in that way. The direct examination of the lower bowel should always be made. In some cases it gives most valuable information.

For treatment, not enough has been said or done regarding prophylaxis. The amebæ come from the water or the soil, or from food off or out of the soil. Raw vegetables and greens are especially likely to be carriers. If we cannot secure uncontaminated water at the outset, we should do as much as possible to prevent ground and water infection by proper latrines, and with the increased activity of racially careless market gardeners we should have inspection of the methods of fertilization, and be certain that the use of human manure is not in vogue.

Curative treatment is most effective in the beginning, and many cases of amebic dysentery would never reach a positive diagnosis if acute diarrheas were more promptly and radically treated. Purgation, colon flushing, intestinal antiseptics and diet form the basis of successful early treatment. Later, rest in bed is an essential; free evacuation just as much so. Beyond these are many methods that would be impossible to enumerate now. I would like to point out that while one of these, enemata, including those of quinin, is often of great palliative value, real cure rarely follows, nor can it if the lesions are high up, without more pains than most patients can receive. The more rational direct method, by an opening into the upper end of the colon, is more promising, but there, too, success will depend mainly on the thoroughness of the subsequent local treatment. Before this is used I would strongly urge a careful trial with ipecac, a method already recommended by many experienced physicians in dysentery countries, and which I have mentioned in another place.

Diarrhea of Gastrogenous Origin.*

By SIDNEY K. SIMON, M. D., New Orleans.

The term diarrhea is merely a broad, generalized expression for a state of abnormal bowel functioning in which there are more or

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less liquid stools with frequent evacuations. The presence of inflammatory reaction is irrelevant to the definition.

Among the various causes usually assigned as explanation for a diarrhea, it is seldom one finds the stomach mentioned or even, in fact, considered as a possible incriminating fact of. It is true, in comparison with other types, the diarrheas of purely gastrogenous origin cannot be said to be of very frequent occurrence, but, though relatively infrequent, the stomach does play a part, as I hope to show, in the causation of diarrhea, which cannot and should not be overlooked.

In the brief space allotted me in this symposium, I shall attempt to emphasize the importance of this class of diarrheas and for convenience shall epitomize and group them under their appropriate clinical headings.

Achylia Gastrica.—The diarrhea resulting from a complete anacidity of the gastric juice is undoubtedly the most frequently encountered and important of the gastric group. It is surprising how often this form of diarrhea is misunderstood and overlooked by the busy practitioner.

Achylia gastrica as a distinct clinical entity was first described in 1892 by Einhorn, who studied and classified it as a pure neurosis of secretion, most probably of congenital origin.

The disease is the expression of a complete functional debility of the secreting peptic glands of the stomach, the mucosa itself only undergoing slight granular changes secondarily and as a result of continued mechanical insults.

Between this primary or idiopathic achylia gastrica and the acquired achylia of organic origin, there should be drawn a clear line of distinction. The second type, also of importance at times as a cause of diarrhea, shall receive consideration further on.

The purely neurotic achylia is by no means a rare condition. It presents itself to us clinically under various forms.

1. Those cases which run a latent course without symptoms, and are discovered accidentally;
- 2, cases in which the symptoms present are referred only to the stomach;
- 3, the intestinal type, which is alone of interest to us at present.

There may be an association of gastric and intestinal disturbances or perhaps there is only a persistent and exceedingly refractory diarrhea as sole evidence of the disease.

A diarrhea of this nature is distinctive in a way. Even though the condition be chronic, as it usually is, the patient gives little evidence of a severe disturbance. The bowel movements are rarely above three or four per day and the evacuations occur nearly always during the morning hours, often beginning on awakening. The stools present a soft, pultaceous appearance and in the uncomplicated forms, there is no mucus, blood or other evidence of inflammation. Cramp pains are rarely complained of and there is no tenesmus.

Let us analyze for a moment now, the *raison d'être* of such a diarrhea, resulting purely from the failure of the hydrochloric acid and enzyme secretion of the gastric juice. The hydrochloric acid, especially as we know, has many functions to perform in behalf of the stomach and the digestion in general.

There is no vicarious secretion to replace it in toto, as is the case with the enzymes. A total absence of the hydrochloric acid from the stomach must then of necessity be of distinct disadvantage to the individual, since it places his digestion under a handicap, which may eventually find its expression, among other disturbances, in a complete disarrangement of the functioning of the intestinal canal.

First of all, the hydrochloric acid, as has long been known, acts as disinfectant to the food upon its entering the stomach.

Nature evidently intended that the intestinal canal, supplied with its own highly necessary and distinctive flora, be spared the invasion of hordes of foreign and chance micro-organisms from without.

The lack of such protection may in itself produce intestinal disturbances with or without inflammation, resulting in a diarrhea.

Second, the hydrochloric acid is the sole agent concerned in the digestion of the connective tissue element of the food.

Connective tissue which fails of solution in the stomach will pass on down through the intestines in its original tough and fibrous state. This is a continuous, mechanical insult to the bowels which often has much to do with the production of a diarrhea in the achylia patient.

Third, the absence of all gastric secretion represents a serious deficiency for the proper chymification of the food, that valuable function which the stomach considerably assumes in preparation for the more highly refined duodenal digestion. In the achylic stom-

ach, the food often remains completely unpulped and enters the intestine in masses as swallowed. This tends to retard its further digestion, thereby irritating the bowels, with perhaps a consequent diarrhea.

Fourth, the hydrochloric acid, as we know from recent studies, has much to do with what might be called the mechanism of the pylorus, a regulating influence, as it were, over the stomach's gate-keeper. When this control is missing or defective the pylorus acts without definite purpose. The food is allowed to enter the duodenum too quickly and is therefore somewhat unprepared for its further tarrying in the bowels. This hypermotility of the stomach, as it is called, is always a factor for consideration in connection with the achylic diarrhea.

Fifth. Under this heading comes up the interesting question of the digestive harmones. Baylis and Starling have conclusively shown that the acid chyme upon entering the duodenum combines with another product, the secretion of the duodenal mucosa, resulting in the production of a new chemical body, called a hormone. This stimulates pancreatic secretion through the blood. The hydrochloric acid, then, as Pawlow had found experimentally before, plays a big part in the activity of the pancreas and its juice, and indirectly its absence from the chyme as in achylia gastrica would favor an incomplete intestinal digestion, an element predisposing to diarrhea.

From the foregoing analysis I think it is made plain why the achylia patient might suffer from diarrhea. The surprising feature would rather seem to be, why he does not oftener present this symptom, since only about one-fifth of the cases do. Nature's wonderful provisions for emergency in all her spheres of activity, I believe is most beautifully shown here.

The treatment of achylic diarrhea, merely mentioned *en passant*, is to artificially replace the deficient gastric secretion, especially the hydrochloric acid element. Here we have a diarrhea that responds but poorly to the best astringents or even narcotics, but is checked almost magically with large doses of hydrochloric acid.

Hyperacidity—Here we are dealing with an anomaly of secretion, the direct antithesis of achylia. In a recent paper I have advanced the idea that actual hyperacidity is uncommon, the hyperacid stomach representing a clinical condition based on many factors.

The diarrhea resulting from actual hyperacidity must then be rare, especially when it is recalled also that constipation forms the rule in this condition. However, diarrhea is occasionally seen and is explained in this wise: The excessively acid chyme fails of complete neutralization in the intestine, the normally alkaline reaction of the feces becomes acid instead, a condition which tends to produce diarrheal movements and even at times inflammatory reaction in the bowels.

Under these circumstances, the stools appear somewhat voluminous and frothy and have a peculiar sour odor. The starch digestion has failed to great extent. This condition would seem to have much in common with a form of so-called intestinal dyspepsia, described by Schmidt in which a diarrhea with similar stools forms the most prominent symptom.

Dilatation of the Stomach—Here again constipation is the rule due to the scant supply of water reaching the intestinal canal, as well as to the retention in great part of the food contents in the stomach. When diarrhea occurs, as it will at times during the course of an obstructed, dilated stomach from whatever cause it is the result of the absorption of toxins from the stagnating gastric contents. Such a diarrhea then would assume the nature, pure and simple of a toxic diarrhea. In carcinoma ventriculi, there is in addition to the above cause a terminal, cachectic diarrhea, produced through a combination of factors.

Gastritis, Acute and Chronic—In acute gastritis, the causative agent often affects the stomach and intestine alike. An acute indigestion or an attack of cholera morbus is frequently followed by a severe diarrhea. These conditions are in nearly all instances mild forms of a gastro-enterites.

In chronic gastritis, again, the intestines show a strong tendency to share in the inflammatory process originating above. This is especially true of the chronic gastritis of the alcoholic, in which diarrhea is a very common symptom. When finally through sclerotic changes the glandular apparatus of the gastric mucosa becomes largely obliterated we will find the organic type of achylia gastrica mentioned above. The intestinal disturbances resulting from this will often simulate closely those of the pure primary achylia. There is, however, no hard and fast rule, for in most instances, it must

be remembered obstinate constipation is complained of in cases of chronic gastritis.

This covers the ground of the more important gastrogenous causes of diarrhea. That there is such a type and that its existence should not be overlooked, I trust to have made plain. I recall to mind one of the first lectures I had occasion to hear in Ewald's clinic in Berlin. The case was one of chronic diarrhea and, though the patient did not complain of any gastric symptoms at all, I felt somewhat surprised to see that the stomach tube was used for a diagnosis.

This is necessary, as I have since learned on many occasions, when the cause of a persistent, intractable diarrhea does not at once become apparent and especially when we have reason to expect a possible gastric origin for the disturbance.

Toxic and Nervous Conditions, as Factors in Chronic Diarrhea.*

By G. FARRAR PATTON, M. D., New Orleans.

In the absence of any limitation of scope, it may be assumed that the subject under consideration embraces chronic diarrheas of both adults and children, especially as the Chairman on whose invitation the symposium is held is a teacher of pediatrics.

In order to conform to a desirable standard of conciseness the subject matter of this paper will be presented in the form of short paragraphs under the respective headings of Toxic and Nervous Conditions. Indulgence is asked for the unavoidable mention of some elementary truths.

Toxic Conditions—Leaving out of account cases in which tuberculosis, bacillary invasion and the ameba coli are causative factors, it may be said that nearly all chronic diarrheas have as their starting point some toxic process in the alimentary canal.

Despite the fact that mechanical irritation exerted by undigested food often plays an important role as an exciting cause, that a purely external agency, such as exposure to cold, may seem to be the determining factor, and that deranged nerve supply, as will be presently stated, may contribute to cause the trouble, the actual

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character of that trouble is essentially a toxemia in the vast majority of cases.

The most familiar form of such toxemia is that in which the initial process is simply one of ptomain absorption with fever, disordered digestion, intestinal catarrh, and increase of peristaltic action, but in which the diarrhea later becomes chronic, whether owing to lack of recuperative power, or to some renewal of exciting causes, such as indiscretions of diet, and in young children the undue exposure of the surface of the body to cold, especially the legs and abdomen.

In cases where only recuperative power seems wanting it may be assumed that the toxic derangement of digestive functions simply persists, just as the impairment of function in the kidneys caused by the toxins of certain acute infections persists after the disease proper has subsided. (A still more striking instance of prolonged vitiated secretory function is afforded by the salivary glands of the *stegomyia* mosquito after the system of that insect becomes infected with yellow fever, the secretion of those glands remaining permanently affected from that time forward).

In another class of cases which becomes chronic the combined effect of local congestion, toxemia, impaired secretion and mechanical irritation results in ulceration of the mucous membrane with the added evils of that condition, each separate ulcer becoming a potential factor for increasing the grand total of toxic infection.

In still other cases in which a pseudo-membrane forms in the bowel during the course of some acute infective disease, such as scarlatina, pneumonia or pyemia, or as the result of chronic poisoning by arsenic or mercury, though differing in each separate instance, the toxic character of the process involved is unmistakable.

The dreaded "summer diarrhea" of children, beginning often with deceptive mildness but in typical cases progressing steadily from stage to stage, as graphically described in text-books and remembered with awe by those who have attended it may be cited as one of the toxic conditions which it has only been possible to treat intelligently since modern research has shed light on its pathology.

Belonging in the category of toxic intestinal conditions, though not necessarily associated with diarrhea, may be mentioned the accumulation of toxic material in the alimentary canal during the

course of certain infective diseases and calling for routine measures of relief to rid the system of such material as a general precaution.

For example, in pneumonia and in tuberculosis the beneficial administration of creosote and similar drugs may be regarded mainly as intestinal disinfection, and even in rheumatic conditions it has been strenuously urged in recent times that the action of the salicylates is mainly exerted upon toxins present in the alimentary canal.

The undeniable benefit of small doses of castor oil in the latter stages of certain cases of typhoid fever is most logically explained on the theory that the mild purgative effect of the oil aids in clearing the bowel of toxic material which would, and does, otherwise contribute toward keeping up the fever.

Pursuing a little further this digression germane to the subject in hand, it is here declared as the belief of the writer that a similar procedure may be advantageously adopted in most of the acute infective diseases.

In the line of treatment it may be held, regardless of the diarrheal condition already existing, that it is well in the majority of cases to begin by clearing out and disinfecting the bowel at once, for which purpose calomel given in fractional doses at short intervals over the first twenty-four hours seems particularly eligible.

In some cases it may be found serviceable to supplement this initial procedure by giving from time to time, as the treatment progresses, small doses of castor oil, which many believe to exert a healing action on the mucous membrane of the bowel.

As regards intestinal disinfection, about the utility of which considerable skepticism exists in certain quarters, it may be mentioned that the very latest suggestion in that line comes from Schmidt of Berlin, who advocates the use of hydrogen dioxid suspended in pure agar-agar, which he claims will absorb 10 or 12% of the peroxide and liberates the same but slowly in the intestine (*Vide Berlin Med. Klinik*, Mar. 28/09, pp.459-490).

In cases where the trouble is merely persistent functional derangement it may be possible, after the preliminary clearing out of irritating and toxic material, to bring a cure by the use of the generally useful combinations of bismuth, with paregoric and chalk mixture, etc., etc., under strict regulation of diet, and enforced rest in bed;—but in the experience of the writer no other remedy

has been found as efficacious in the severer forms, especially those attended with ulceration of the bowel, as nitrate of silver in doses of about $1/8$ grain every three or four hours in a menstrum of gum arabic water acidulated with dilute nitric acid and administered in about two ounces of water when the stomach is presumably empty, i. e. from two to three hours after the last nourishment was taken.

Where extensive ulceration of the colon is present enemas consisting of a very weak solution of nitrate of silver in tepid water have been found especially beneficial. On account of the intolerance of the bowel the initial enema should not be more than two, four or six ounces nor stronger than about $1/8$ or $1/6$ gr. of the nitrate to each ounce of water.

The efficacy of extremely dilute solutions of the silver salt applied in this way is remarkable, much as the mixtures of Argyrol in low percentages have been found most serviceable in the intolerant condition of the eye in ophthalmia neonatorum.

Whatever plan of medication is adopted absolute control of diet is imperative with the object of supplying nourishment in some concentrated form that will call for the least effort of digestion, while offering no mechanical irritation and affording a medium relatively unfavorable for putrefactive changes and the growth of bacteria.

In the first stages of treatment the standard liquid foods containing alcohol in preservative quantities are perhaps to be preferred, though freshly prepared broths are found to answer perfectly well in many cases. Some form of stimulant in addition to such broths is generally useful.

The use of food in liquid form, administered with special reference to the hours at which the acid nitrate of silver solution is given, has been held to be essential in connection with that particular line of medication.

Farinaceous foods are rarely admissible until convalescence is established, and the use of milk during the active stage of the disease, even with all due precautions, is, to say the least, often disappointing in city practice, especially among the poor.

Rest in bed, the use of only sterilized water, or water of undoubted purity, and with young children, strict attention to shielding the body and limbs against cold are among the most important features of treatment, while it goes without saying that tonic medication

after convalescence, with a change of atmosphere from the city to the country whenever practicable, are points not to be neglected.

Nervous Conditions—The power of disordered nerve supply to disturb by reflex action the various functions of the human organism is nowhere more strikingly manifest than in the influence which the process of dentition exerts upon the digestive functions of children. It has been pointed out that at the time of life when this occurs the child has reached an age when experimental attempts at eating unsuitable food is likely to play an important role, but the main fact is indisputable that the condition in the great majority of instances is a direct neurosis.

It is not within the scope of this brief sketch to consider in detail the pathology and treatment of that condition, but it may be said in a general way that fortunately the trouble usually proves amenable to the milder forms of treatment familiar to all. In obstinate cases the ingenuity of the physician may be severely taxed, but whatever the cause, the intestinal trouble presents more or less of the phenomena already considered and to which the same outline of treatment is applicable.

Another and fortunately rare condition attributed to disordered nerve supply is the chronic form of diarrhea to which the name of "mucous diseases" has been applied. In this condition, along with lowered vitality and some obscure derangement of nerve there is a profuse and persistent discharge of mucus from the bowel, severe cases proving exceptionally obstinate.

Here again, the rational indications for treatment are mainly those looking toward restoration of the general health, with such special measures of therapy as individual cases may seem to require, but as the seat of the morbid process is usually in the colon it is practicable to institute local treatment, including by preference such measures as the enemata of mild nitrate of silver solutions already mentioned, with the internal administration of tonics after the local trouble has been brought under control.

Time and space on this occasion preclude any further enumeration of other forms of persistent bowel trouble as influenced by nerve conditions independent of primary disorders or digestion.

Surgical Aspects of Chronic Diarrhea ; or Appendicostomy and Cecostomy.*

By HERMANN B. GESSNER, M. D., New Orleans.

Taking up the surgical aspects of chronic diarrhea I shall at once consider the above named operations, their technique, their indications in chronic diarrhea and the results obtained.

Appendicostomy, for which credit is usually given Weir, of New York, who did it in 1902, is performed through the usual muscle-splitting approach known as the gridiron or McBurney incision.

McCaw (Vol. IV, Keene's Surgery), describing the method employed by Arthur, Surgeon at the Soldiers' Home in Washington, mentions as one of the important steps the cutting off of the tip and testing the patency of the tube by passing a bougie-a-boule into the cecum. He very properly calls attention to the need of care to avoid soiling the wound when the bougie is withdrawn. Tuttle and others declare this test to be unnecessary, claiming that palpation is sufficient to determine the patency of the tube. In this opinion I concur.

If the appendix is found healthy and patent its end is brought out of the wound, about $1\frac{1}{2}$ inch being left within the abdomen. This technic point, apparently meant to avoid interfering with the circulation of the meso-appendix, would seem to offer a site for the development of an intra-abdominal hernia with possible serious results besides leaving the danger of a subsequent appendiceal attack, and making necessary for obliteration a secondary operation. Following the idea of Meyer, Dawbarn and Tuttle, the appendix should, I think, be drawn out until the cecum is in contact with the parietal peritoneum as in the second choice operation of cecostomy, the circulation being preserved by proper care in suturing the layers of the abdominal wound about the tube. The appendix is then sutured to the skin, without involving the lumen, the abdominal wound closed in tiers, and dressings applied. After 48 hours the extruding part is shaved off, a catheter introduced and irrigation begun.

If the appendix is too hard to find, is diseased or impervious, cecostomy is done, after removal of the diseased or impervious appendix. This operation was the forerunner of appendicostomy, having been done in 1893; the credit is variously given to Mayo

*Read in a Symposium on Chronic Diarrhea, before the Orleans Parish Medical Society, May 10, 1909.

Robson and Hale White, both of England. The technic of the operation is that of the Stamm-Kader gastrostomy with a tube, the purse string sutures being employed to fix the cecum to the abdominal wall; irrigation may be begun at once.

Quoting McCaw: "Of the two operations (appendicostomy and cecostomy) the first is to be preferred. It secures a long, firm bearing surface, minimizes the danger of leakage and allows for subsequent closure of the fistula by a very trifling operation, if indeed the opening does not close of itself. The danger of ventral hernia is less than where the cecostomy is done. This use of the appendix may also be applicable to other conditions than the one under consideration and deserves more notice than it has received." These other conditions I shall not enumerate, that being foreign to the scope of this paper.

Closure of the appendiceal fistula is accomplished by cauterization with the actual cautery or with HNO_3 when desired.

The results of these operations appear to be uniformly favorable. Tuttle (*J. A. M. A.*, Aug. 11, 1906), reports 44 cases in the hands of himself and colleagues in this country and elsewhere, with 38 cures and no ill effects attributable to the operation. Six patients died, 2 of unsuspected tuberculosis, 2 of extensive ulceration of the bowel and nephritis, 1 of exhaustion before the appendix was opened, 1 of cerebral disease three months later, when the dysentery had been cured one month. Gant (*Abstract J. A. M. A.*, Aug. 11, 1906), reports 9 cases, 8 appendicostomies, 1 cecostomy, with 7 cures, 2 failures, of which one was a death from sloughing of the cecum; the other non-success was due to stricture of the traverse colon. He reports one ventral hernia.

Ventral hernia appears to be the untoward effect most to be feared.

There is no question in the minds of those who have written on this subject of the value of the method. The discussion revolves about the selection of suitable cases for the operation, which is of course indicated in cases of disease between the cecum and the rectum. In this connection let me quote again from McCaw in Keene's *Surgery*: "There are certain cases of chronic amebic dysentery which proceed slowly but inevitably to a fatal termination without improvement. At the autopsy table it is seen that the lesions are of such extent that the entire gut is practically disinte-

grated. The pathologic process has at no time been very acute, but has involved so large an area as to prevent any attempt on the part of nature to repair damages. It is discrediting a valuable method of treatment to confine operation to such hopeless cases. Patients who show by their response to treatment by rest, diet or medication that their large intestines are not entirely crippled are the ones for whom irrigation from cecum to outlet is most suitable."

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Acute Spasmodic Asthma as Evidence of Autointoxication.

By ALLAN EUSTIS, M. D., Abbeville, La.

By asthma is meant a pathological condition characterized by three fundamental symptoms:

1st. Attacks coming on paroxysmally, occurring at variable intervals.

2d. Dyspnea, characterized by labored respiratory effort, expiration being greatly prolonged and auscultation demonstrating the presence of sibilant rales over both lungs, with prolonged respiratory murmur. There is usually an associated emphysema and the chest is expanded with rigid diaphragm.

3rd. An increased secretion and turgescence of all respiratory mucous membranes.

The so-called cardiac asthma, renal asthma, dyspeptic asthma, should have no recognition as distinct diseases. In fact, the object of this paper is to urge the recognition of asthma not as a distinct disease, but as a symptom complex of a morbid condition of the body, which is manifested by the outbreak of asthma, but has been existant between attacks..

In 1901, at the meeting of the Mississippi Valley Medical Asso-

ciation, North brought out the point that there were three factors necessary for an attack of asthma:

1st. A vulnerable area of mucous membrane, usually in the nose, but also in the pharynx in certain cases.

2nd. An external irritant or existing cause, which should be modified to also an internal irritant, and,

3rd. An abnormally sensitive nerve center.

Any condition which will increase the excitability of the nerve centre or act as an internal irritant to either the nerve centre or peripheral nerve ending will predispose to an attack.

In 1905 (1), before the Orleans Parish Medical Society, I called attention to the clinical significance of indicanuria and since then I have made it a practice to include this in the routine examination of patients. For a long time I was struck by the frequency with which this condition was met with in attacks of asthma. In 1906, at the meeting of the American Medical Association, Rochester (2), made the claim that the underlying cause of asthma was to be found in an autointoxication, and he reported cases relieved so completely by "so regulating the intake of food and stimulating eliminative waste products, that proper metabolic balance could be maintained."

His opinions at the time were not by any means unanimously received, but since then I have given each case careful study and I am firmly convinced that Rochester was in the main correct. Even as early as 1868, Salter (3) expressed the opinion that certain foods increased the liability of attacks of asthma. In later years, the toxic condition of the blood has been especially advocated by Jack and he reports remarkable results in the treatment of asthma on purely hygienic grounds and proper diet. He is a little too extreme in his views, however.

The rhinologists, on the other hand, represented by Farrell (4) and others, claim that 80% of asthmatics can be cured by remedying the abnormal condition of the naso-pharynx, and the other 20% are relieved, and they argue from this it is purely a reflex manifestation and that by relieving the exciting cause the condition will be relieved. That the reflex irritation of an inflamed Schneiderian membrane or the pressure from a septic spur may excite asthma, cannot be denied; but it must be borne in mind that without the toxic condition of the blood the reflex is less apt to be excited.

Solis Cohen (5) proposes a classification of asthma not as a disease, but as a group of symptoms complex and proposes four classes:

1. Asthma dependent upon vaso-motor ataxia.
2. Asthma dependent on bronchial spasm.
3. Asthma associated with bronchitis and emphysema.
4. Asthma associated with nasal turgescence, and sometimes nasal polypi.

As shown by Brodie and Dixon (6) in their experiments, a typical attack of asthma can be produced by stimulation of the vagus nerve in which run fibres to the bronchioles, both constrictors and dilators. Stimulation of the constrictor fibres of the vagus could be excited by muscarin, pilocarpin, and electrically, resulting in typical attack of asthma.

The fact that I have found evidence of autointoxication in every case of asthma examined by me for four years, leads me to believe that during the attack there is some toxin in the blood, which acts similarly to the muscarin or which depresses the respiratory centre to such an extent that the reflex stimulation of an inflamed nasal mucosa results in a stimulation of the constrictor fibres of the vagus. The fact that nearly every one of these cases was relieved by diminished nitrogenous diet and measure to reduce the toxemia certainly should have some weight.

The report of these cases will, I hope, result in further research along these lines. I make no claims, but simply wish to place before you the results of eliminative treatment of asthma and to urge fewer sedatives and more hygienic procedures in the management of this class of patients.

The following case is reported in some detail:

CASE 1.

Mrs. O. T., white, female, *act* 47, married, a native of Vermillion Parish and resident of same for life. First consulted me on September 30, 1908.

Family History: Her mother is still living at 84 and the cause of her father's death is obscure. She has three brothers and two sisters living, all healthy, with the exception that one suffers from frequent attacks of myalgia and headache. There has been no asthma in any member of the family.

Personal History: When a child she had measles, parotiditis, and from earliest recollection she has suffered from paroxysmal attacks of dyspnea, which usually came on at night. She was subject to colds, but has never had pneumonia. These frequent attacks of dyspnea, as she grew older, became less frequent and by the time she had married, 28 years ago, they had ceased altogether. She has been subject to attacks of "biliousness" all her life and has always been a "big meat eater." Five years ago the attacks returned, worse during the winter months, but occasionally present during the summer. September 30, 1908, when I first saw her at my office, she had an acute coryza. There was only slight dyspnea; she was obese, but very active. For three nights she had not been able to sleep, on account of asthma.

Physical Examination: The respiration was almost entirely costal, the chest was apparently elevated, sibilant râles could be heard over both lungs, with the characteristic prolonged respiratory murmur. The nasal mucosa was greatly congested over both turbinate bones, but their turgescence promptly subsided under local application of adrenalin chloride solution. The urine showed nothing abnormal, except a great excess of indican, subsequent examination of a 24 hour specimen showing full excretion of solids. She had a lacerated cervix and the uterus was somewhat enlarged from a chronic endometritis. The liver dullness measured approximately six inches in the mammary line, and there was some tenderness over the gall bladder. The tongue was coated, but she stated that she had had a daily movement of the bowels for the past week. She was given potassium iodide, tr. lobelia and heroin hydrochloride but no eliminative treatment was instituted as I wished to test the efficacy of antispasmodics without stimulating elimination of nitrogenous waste products. Cubeb cigarettes were also ordered.

October 3: She reported no improvement at all and complained of intense frontal and occipital headache. Examination of the chest showed no change from previous visit, except a more pronounced wheezing and a more pronounced dyspnea. Systolic blood pressure with the old style Rivau-Rocci instrument was recorded as 178 M. M. There was still a great excess of indican in the urine, the latter turning to an ink color when Jaffe's test was applied, even before the chloroform was added.

Eliminative treatment was then instituted by prescribing five grains of calomel and powdered rhubarb, followed by a saline; she was advised to drink freely of water, lithia tablets in a full glass of water being ordered every two hours and on her return home she was given a hot foot bath until free sweating was obtained for twenty minutes to half an hour. Nitroglycerin was also prescribed with a view to lowering the peripheral pressure. An attempt to alkalinize the blood was also made by prescribing the citrate of soda. She was prohibited from eating all nitrogenous food (milk being considered by me as such) and all antispasmodic treatment was discontinued.

October 7: All evidence of asthma had disappeared, the urine was free from indican and peripheral blood pressure had dropped to 130mm.

October 17: She was still free from asthma and there was no indicanuria. She complained somewhat of flatulence with occasional intestinal cramps for which she was given carminatives with subsequent relief.

November 21: She had been free of all asthmatic attacks until the past three nights, when she had had slight attacks. She had felt so well that she had been more free in her diet and had been eating roast quail for the past week. Examination showed a few sibilant râles over both lungs and examination of the urine showed a marked indicanuria. Blood pressure not recorded. She was given three grains of calomel and five grains of powdered rhubarb in divided doses and was admonished to withdraw all meat and eggs from her diet and was given a pill to be taken after meals consisting of acid sodium oleate, sodium salicylate, phenol phthallein and menthol with a view to diminishing intestinal putrefaction.

I have seen her about twice each month since, and she has had no return of the asthma. She has a tendency to indicanuria due to the existing enteroptosis, but by careful regulation of her diet I have been able to control this condition.

CASE 2. F. V., white, male, *aet.* 35, farmer, native of Illinois but a resident of Vermillion parish for eight years where he had come in the hope that he would be able to get some relief from asthma on account of the change of climate.

His family history has no bearing on his asthmatic condition and for the sake of brevity I will omit his personal history except

its present bearing. He has been a sufferer from asthma ever since he was a child, but the attacks have been worse of late years, more especially in the winter months. His nose was operated upon in Illinois by a specialist and again since he has been in Louisiana, but with no relief.

I first saw him for his asthmatic condition December 18, '08, when he stated that he had not slept for three nights. There was a marked coryza the turbinate mucosa being so congested that it bled when touched with cotton swab. There was evidence of a portion of the inferior turbinate having been removed on each side. His thorax presented the characteristic signs of an acute asthmatic attack, all other organs normal and urine showing a marked indicanuria. Peripheral blood pressure was high but was not recorded.

TREATMENT: He was given a calomel and rhubarb purge, ammonium iodide, gr. v., tr. lobelia, m. XX, and heroin hydrochloride, gr. 1/12, every three hours; all nitrogenous food was withdrawn, and given abundance of alkaline water. He was also given cubeb cigarettes to inhale. He was also instructed to take a full dose of phosphate of sodium three times daily.

January: There had been considerable relief but he was still suffering at night, the attacks coming on as rule about three o'clock in the morning. The urine was still greatly loaded with indican, salol in five grain doses was given as an intestinal antiseptic. The ammonium iodide mixture was stopped and he was instructed to continue his same diminished nitrogenous diet, not allowing him milk, which in my experience forms large amounts of indican in the presence of the colon bacillus, and he was continued on the phosphate of soda. No treatment was given his nasal mucosa at any time.

January 7: He had been practically relieved of the attacks until the night previous when he experienced a slight attack. The indicanuria had diminished steadily, but examination made this day showed a marked increase in the indican. Questioning revealed the fact that he had not been as careful in his diet and had partaken of some chicken gumbo. He was given a calomel and rhubarb purge and was instructed to take a hot air bath (sweat) each night before retiring with a view to aiding as much as possible in

elimination, instructing him at the same time to continue to partake freely of the alkaline waters.

March 3: He has not had any more attacks and states that he feels better and sleeps better than he has done for many years. There is still a tendency to indicanuria and occasional doses of phosphate of sodium were continued, with diminished nitrogenous diet, and occasional sweat baths.

He has had occasional attacks since, always the result of errors in diet, but these have not lasted long and have readily yielded to eliminative treatment.

These two cases will serve to illustrate some twenty odd cases which I have observed, among them being my oldest son, *aet.* 5, in whom I can predict an attack of asthma by the presence of indicanuria.

DISCUSSION OF PAPER OF DR. EUSTIS.

DR. J. T. HALSEY, of New Orleans: The chief reason for my discussing this paper is because Dr. Eustis has asked me to. I had not read the paper over, and did not know until it was read what lines the paper would follow.

In the matter of therapeutics, certainly the results that Dr. Eustis has given us indicate that he is on the right track, although I am not ready to say he is.

One thing I am able to contribute to this discussion is about the matter of treatment of cases where indicanuria appears to be a prominent symptom. I have been a good deal interested in the indican reactions in the urine. How large a role autointoxication plays in the various conditions is an important question. Personally I do not believe a diagnosis of autointoxication should be made to cover all cases where we are in doubt. But in a certain limited number of cases it does play an important part. The treatment I have been accustomed to follow in cases where I had marked indicanuria, and where I thought there was some connection between the symptoms of the patient and the abnormal condition of the intestines, has been along these lines: In the first place I find out about the digestion. The majority of these cases have had a very low percentage of hydrochloric acid in the gastric juice. In these cases I give hydrochloric acid in large doses, thirty, forty

or sixty minims after each meal. I take them off meat for a time, and supply the proteid in their diet with buttermilk. In addition to that, I have made use occasionally of small doses of calomel, not to the extent of purging the patient, but one-tenth of a grain three times a day for three or four days at a time, and then omitting it, and I have seen the indican disappear as if by magic in a number of cases.

I would like to call Dr. Eustis's attention to another reaction in the urine which has been brought to our attention. It is the reaction of indo-acetic acid. When you carry out your indican reaction and add your hydrochloric acid, if the urine takes on a reddish tint it is probable that indo-acetic acid is present. If you now acidify this with sulphuric acid, add ether and then strong hydrochloric, the hydrochloric acid takes on a reddish or pinkish tint.

DR. EUSTIS: I would like to have Dr. Dock's views on this. My object in reading this paper was to promote discussion. I would like to know if toxins circulating in the blood will stimulate the constrictor fibers of the vagus.

DR. GEORGE DOCK, of New Orleans: I did not get up to talk, because Dr. Halsey had said practically everything that I thought of saying about the paper, and I did not want to take up the time of the Society.

I think, too, that the diagnosis is the important thing in these cases. I would like to mention one or two points. The mere finding of large quantities of indican in a patient who has asthma does not prove that the patient has a toxic asthma. I can speak of that rather positively, because I have had a large number of indican tests made on patients, and in a certain proportion of them I have found large quantities of indican without any asthmatic symptoms at all. It is possible, of course, that a patient might have symptoms from a small quantity. So that the mere fact that we find indican in a case of asthma should not lead us to ascribe that as the cause, but in all such cases we should look into all possible causes, not only nasal, but all others. My experience with asthma has been that in a great many cases we have organic causes that are important. I will mention particularly tuberculosis. In many cases of asthma the tuberculosis is over-

looked, and I have seen a number of cases of typical asthmatic attacks in which tuberculosis had not been searched for at all.

I agree with what has been said with regard to treatment. We should treat these patients for everything we see wrong dietetically, medicinally and otherwise.

DR. GUSTAV MANN, of New Orleans: We know definitely that the bronchial muscles are under the influence of the vagus, as stimulation of the vagus causes contraction of the lung, while division of the vagus leads to dilatation of the lung. The extent of the control by the vagus is, however, a very difficult question, as we must bear in mind that the vagus goes to the stomach as well as to the lung, and therefore it is necessary to take into account a reflex stimulation of the pulmonary vagus brought about by the stimulation of the gastric branch, but I do not know of any definite experiments which have been made along these lines.

DR. EUSTIS (in closing): I am very glad to have had these remarks. I was beginning to think it was present in all cases of asthma without any indicanuria. I did not say that indicanuria was the cause of asthma. I simply wished to call attention to the fact that there is a toxemic condition of the blood in asthma, and to report that, in my experience, eliminative treatment and diminished nitrogenous diet have given me uniformly good results, far superior to our commonly accepted treatment for this condition.

Regarding Dr. Halsey's remarks about indo-acetic acid (first mentioned by Herter not more than a year ago), I have been very much interested in his results. This substance in the urine also denotes nitrogenous putrefaction somewhere in the body, and I believe also should be looked for. It is a synthesis of the indol with acetic acid instead of with the sulphuric acid radicle, which latter obtains in indican.

Prophylactic Injections of Serum and the Theory of Anaphylaxis.

By I. I. LEMANN, M. D., New Orleans.

I have ventured to bring the subject of anaphylaxis to your attention to-day because, while it has been widely discussed during the past three years by workers in the field of immunity, it has

received comparatively little attention in general societies or in the medical journals of general, not special interest. This paper is intended, in the first place, to present a brief summary of the literature, experimental and clinical, of the phenomena of anaphylaxis. Secondly, I wish to ask a question, rather than to answer it, namely, what should be our attitude in regard to prophylactic injections of serum in the light of probable subsequent anaphylactic reactions?

Anaphylaxis is the opposite of prophylaxis. Just as the latter term indicates a condition favoring protection, hence lessened susceptibility, so anaphylaxis means a condition of decreased protection and increased susceptibility. We have long been accustomed to the idea that by certain measures, for instance, vaccination or the injection of antidiphtheritic or antitetanic serum, we may increase the resistance of our bodies to certain diseases, but it has been only within the past three years that attention has been particularly devoted to the fact that the injection of certain foreign materials decreases the resisting power to future injections of those materials. These materials are probably proteid, and the one with which we are most concerned is horse serum.

Theobald Smith was one of the earliest to note that experimental animals often succumbed to second injections of serum which, when given the first time, had not been harmful. The subject was first thoroughly investigated by Rosenau and Anderson in the Hygienic Laboratory of the Marine Hospital and Public Health Service, and by Otto, working in Ehrlich's laboratory in Frankfort. The latter work was instituted by Theobald Smith's suggestion to Ehrlich. The results of these investigators practically coincided.

The symptoms manifested by guinea pigs when injected a second time with horse serum are respiratory embarrassment, restlessness, paralysis or convulsions, and death usually supervenes. It has been found that a minute quantity, a 1.000.000 c. c., of serum is sufficient at the first injection to sensitize a guinea pig to subsequent injections, and that 1-10 c. c. at a second injection is sufficient to produce serious symptoms. These reactions are not due to the antitoxins contained in the therapeutic sera, for they are equally produced by normal horse serum. Nor are they due to any of the preservatives usually added to sera. Rosenau and

Anderson were not able to affect the anaphylactic constituent of serum by physical methods, such as heat or cold, nor by chemical agencies. Further, they found that anaphylaxis is specific, that is, a guinea pig sensitized with horse serum reacts only to horse serum and not to the injections of any other serum or albuminous material, such as egg white, vegetable proteid, milk, etc. A guinea pig sensitized with egg white reacts only to egg white, and so on. Anaphylaxis is transmitted hereditarily from mother to offspring. When an animal has once reacted anaphylactically to a given substance it may develop an antianaphylaxis.

Von Pirquet and Schick, in Vienna, have been the pioneers in the investigation from the clinical side. From the time when therapeutic injections of serum became common—that is, from 1894, when Behring introduced the diphtheria serum—it has been a common clinical observation that ten or twelve days after an injection the patient would develop a general urticaria, pains in the joints, and fever. Von Pirquet has called this the serum disease, and has shown that whereas, this usually appears, as I have just said, ten or twelve days after a first injection, it will appear sooner and in more accentuated form after a second injection. He gives a list of sixty children who were re-injected with antitoxic horse serum at intervals of from six days to seven and a half years between the first and second injections. In those who were re-injected in from fourteen days to four months he obtained what he calls an immediate reaction—that is, within the first twenty-four hours. Those who received their second inoculation more than four months after the first showed what he calls an accelerated reaction—that is, on the fifth, sixth or seventh day, instead of on the tenth or twelfth, as after a primary injection. Further, it has been shown that an interval of at least ten or twelve days must elapse between the first and the second injections in order that the patient show anaphylaxis or heightened susceptibility. Von Pirquet has further pointed out the very great significance of this reaction in its relation to immunity. Thus the tuberculin reaction is one of anaphylaxis. The tuberculous individual sensitized by his existing tuberculous lesion reacts anaphylactically to an additional injection of tuberculous material; the normal individual does not so react.

From the beginning of serum therapy there have been recorded

a few cases of extraordinary sensitiveness to the injections. In 1896 Gottstein had collected from the literature eight cases of death following serum inoculations. In 1906 Rosenau and Anderson gathered nineteen such cases, and knew several others not published. The value of serum therapy is not in the least affected by this handful of cases when we remember, on the other hand, the tremendous reduction of death rate in the one disease, diphtheria, alone, since its introduction. Renewed interest in the subject has been created by the report of several cases of death immediately following serum injection which were reported in the *Journal of the American Medical Association* in 1908. In the January 11, 1908, issue, Dr. S. N. Wiley, of Norristown, Pa., reports the death of a man, 34 years old, previously in good health and of splendid physique, within five minutes after the prophylactic injection of 1,000 units of antidiphtheritic serum. Death was preceded by a sensation of terrible itching and burning of the face and scalp. No mention is made of any previous injection. In the February 8, 1908, issue, Dr. E. L. Boone, of New Martinsville, W. Va., reports the death of a little boy ten years old within five or six minutes after receiving 4,000 units of antitoxin for a mild diphtheria. Symptoms preceding death were dyspnea, cough, and cyanosis. In the July 4, 1908, issue, Dr. Frank W. Thomas, of Claremont, Cal., reports that, following the injection of 4,000 units of antitoxin into the subscapular region of a boy fifteen years of age with a severe diphtheria, this alarming picture was presented: Immediately there was a change in the boy's countenance. A look of intense anxiety came over him, and the lips, face and neck quickly became livid in appearance. He gasped for breath and cried out that he was smothering and that he had a pain in his heart. Froth poured from his mouth and he clutched at his throat and chest. There was a peculiar death-stare in his eyes; the pupils became widely dilated, and very soon he went into convulsions, throwing himself from one side of the bed to the other. Finally his breath seemed to leave him and he dropped back on the bed in a state of collapse and unconsciousness, while the radial pulse entirely disappeared from both wrists. Death seemed imminent."

The boy finally recovered; although it was necessary to use more antitoxin, to a total of 18,000 units, within the first twenty-

four hours, none of the injections causing any special symptoms, and the boy continuing in the desperate state during the period during which they were administered. On the eighth day there were severe muscular and articular pains and a characteristic eruption. No mention is made of any previous serum inoculation.

In the September 5, 1908, issue of the same journal, Dr. Max Dreyfoos, of Cincinnati, reports the following: A young man, 24 years old, who had suffered a punctured wound of the foot from a rusty nail, was given 1,500 units of tetanus antitoxin as a prophylactic measure. Two minutes after the injection the patient complained of a sense of great constriction of the chest, dyspnea, pain in the back, and a feeling of impending death. He was pale and very restless. The symptoms grew better after twenty minutes, and gradually abated, but had not entirely disappeared after four hours. The next day the man was none the worse for his experience. No mention is made of previous serum inoculation.

An experience which I had two years ago (January, 1907) illustrates another phase of the anaphylactic reaction. The patient was a girl of thirteen, who frequently had sore throat. On numerous occasions these attacks were suggestive of diphtheria, and in November, 1903, during one of them she was given an injection of antidiphtheritic serum at the time the swab culture was made. The culture was negative for Klebs-Löffler bacilli. There were at that time no symptoms of serum disease. In the last days of December, 1906, she had another of her customary attacks, and the same thing was done. Again the culture was negative. Twenty-four hours after the injection she developed a general urticaria, and the pulse began to get abnormally slow, although the temperature remained about 101. During the next twenty-four hours the pulse was as slow as 40 per minute. For several days the bradycardia continued, and was gradually substituted by a tachycardia which reached the grade of 120. This was associated with a marked irregularity and intermission. There were no murmurs and no enlargement of the heart. This tachycardia continued for a year, while the irregularity and lability of the cardiac action as manifested by an undue hastening of the pulse upon slight exertion, continued for eighteen months.

In the September, 1908, number of the *Therapie der Gegenwart*, George Klemperer reports the following case: Patient, 32 years

old, four days after a normal confinement was taken with a light fever. On the tenth day this was very high, and on the eleventh the patient was given 30 c. c. of antistreptococcic serum. On the following three days the fever fell by lysis. On the fifth day after the injection she developed a typical serum disease (urticaria, fever, joint swelling) which lasted six days. On the twelfth, and again on the twenty-fifth day after the injection, sudden symptoms of heart failure appeared; the pulse became uncountable and very small. The patient recovered finally. Later inquiry developed the fact that three years previously she had been injected with antidiphtheritic serum in an attack of diphtheria.

In the October, 1908, number of the *Therapie der Gegenwart*, Umber reports the following: A 22-year-old girl had been sick for twelve days with follicular tonsillitis, with a small pointing abscess. The latter was incised. On the thirteenth day, although he did not suspect diphtheria, the doctor, at the urgent request of the patients, injected the patient with 1,000 units (2.5 c. c.) of antidiphtheritic serum. Two hours after the injection, heart collapse set in, with a pulse of over 160 barely perceptible, and a slight dilatation of the heart. At the same time there appeared a universal urticaria, with high fever. The patient recovered after ten days. Inquiry developed the fact that two years previously she had been injected with serum on account of an obstinate exudate on one tonsil. At that time there had been also slight evidences of serum disease, erythema, slightly accelerated pulse, with an occasional intermission.

These three cases, and especially mine, would seem to indicate that the anaphylactic reaction is associated with some involvement of the myocardium. And Gay and Southard have reported that they have found in guinea pigs dying from a second injection of serum fatty changes in voluntary and heart muscles. The experience of my patient would also seem to indicate that these changes are more or less lasting.

Now, after the relation of these cases, I wish to reiterate and emphasize the statement previously made. This small collection of cases is no indictment of serum therapy. These few cases pale into insignificance when we remember the hundreds of thousands of injections and the thousands of lives saved since the introduction of serum therapy. But while we recognize the worth of serum

inoculations, it would be silly to shut our eyes to the occasional bad results, and hence block the way for further investigations which may lead to the elimination of the undesirable constituent.

But while we must insist upon serum inoculations as a therapeutic measure of the highest value, how must we look upon prophylactic injections in the light of possible subsequent anaphylaxis? I confess that, after my experience, I have given up my old rule of injecting doubtful cases at the time of taking the swab culture and have awaited the result of the bacteriological examination. In this way I have avoided, I think, unnecessary sensitizings, and hence unnecessary risk in case of future urgent need of the employment of serum. About prophylactic injections I am inclined to feel the same way, although I have not come to a final conclusion. The experience related by Peters, in the *British Medical Journal* (October 5, 1907), somewhat strengthens my inclination. He relates that there had been two outbreaks of diphtheria at Nottingham. The first outbreak occurred at the General Hospital, and to each of 136 individuals exposed to the infection was given a prophylactic injection of 500 units. Swabs were examined, and out of the 136, twenty were found to harbor Klebs-Löffler bacilli, and were consequently isolated. In spite of the prophylactic injections, seven developed the disease. The second outbreak occurred among school children. The throats of 2,000 children exposed were examined and swabs were taken from the throats of 600. Twenty were found to contain Klebs-Löffler bacilli. These twenty children were isolated. No prophylactic injections were given, and only four new cases developed. How easily might the cessation of this epidemic have been attributed to wholesale injection if that had been practiced? The thing more important than prophylactic injection is to watch the throats of persons exposed to the disease, isolate those who are bacilli carriers and inject upon the first sign of the disease.

DISCUSSION OF PAPER OF DR. LEMANN.

DR. J. T. HALSEY, of New Orleans: This paper which Dr. Lemann has just read brings home several lessons, and one in particular which I wish to speak of. Some five years ago my small boy was given a prophylactic injection of diphtheria anti-

toxin. A year ago—that is, four years after the first injection—the youngster developed a case of diphtheria and was given diphtheria antitoxin. The throat condition cleared up, but the boy remained quite sick. I would have been very much alarmed, but I had just read an article on the serum sickness. A day and a half after the injection there was an intense urticaria. In addition to that, the fever came back as high as 102, and there were albuminaria, leucocytosis, and very general edema. It presented to me a rather alarming appearance.

I will mention another case. A neighbor doctor asked me to see his son. The boy had had an experience somewhat similar to that of my boy. He had a prophylactic injection against diphtheria. This last year he had run a rusty nail into his foot, making a dirty, punctured wound in his foot, and had been given an injection of tetanus antitoxin. He had the same symptoms as my son.

The lesson which I have drawn is to avoid unnecessary antitoxin injections.

DR. W. F. HAGAMAN, of Norwood: I have had some experience with antitoxin, and have had no bad results, prophylactically or otherwise. But I am glad to have heard this discussion. My experience with it has been so happy that I think it is unnecessary to use it prophylactically at all, since there seems to be danger accompanying it. It is a positive cure for the disease, so far as I can see.

DR. L. G. LEBEUF, of New Orleans: I would like to speak of the clinical features of this subject. I had a case of diphtheria in 1907 in a child of twelve years. Antitoxin was given, and with close watching and careful handling the child finally got well. Within three months the child was infected again, and had a very serious case. I injected 25,000 units. An urticaria developed, and in two days it changed to a pyemia, with pustules all over the body, and, as Dr. Lemann has said, there was a weak and extremely rapid heart. We had to use every resource, oxygen, etc., to keep that child alive.

In the same family another child came from New York, and developed the disease. We injected that child also, but did not give the first child any protective serum again. I think something ought to be done on that subject. I believe the Hygienic

Laboratory in Washington is doing some work along that line. The question as to what patients ought to be injected when they have been previously treated with serum, and those ought not to be, is certainly a serious one.

DR. J. L. KIMBELL, of Shreveport: In discussing this matter with a physician the other day he claimed that the patient could be desensitized by the administration of a cubic centimeter of the serum. I would like to ask if any one present knows whether this is correct or not.

DR. C. C. BASS, of New Orleans: I think that the subject of anaphylaxis is well established. There is no question about that. Nor is there any question that the human subject is susceptible to anaphylaxis, just as the guinea pig, though possibly not to the same degree, or that a number of the cases reported by Dr. Lemann were certainly the result of anaphylaxis and the direct result of the administration of serum. Dr. Lemann has been very careful and very guarded in calling attention to this subject, in order that he might not do more harm than good. Admitting plainly, as we do, that anaphylaxis exists, and that it may be a source of death, we must not take too much to it; we must not pay too much attention to it, or else our sins of omission would be far greater than our sins of commission. If we were to take a census of the physicians of this meeting, the chances are good that there is not a single man in the entire audience who has had a death following the use of the serum—that is, has had a death due to anaphylaxis. I would venture also that if we could trace directly the results of antitoxin administration of all the men in the audience we would find that even hundreds of lives, in all probability, had been saved by its use. Therefore, we must not minimize this subject of anaphylaxis, and we must not exaggerate it.

It is highly probable that our present light on this subject indicates that we should not administer serum to patients who probably or possibly have diphtheria when it is possible to make an early culture from the throat and examine it. Only eight hours are required for a positive diagnosis in practically all the positive cases. If that precaution is taken, a delay of eight, ten or even twenty-four hours sometimes, or even generally, is not harmful.

Then we have the other class of cases who are being immunized, those who have been exposed to diphtheria and who should be

protected against it. It is highly probable that we have in sight equally as immunizing a treatment, and perfectly free from this danger of anaphylaxis, and possibly it is soon to be a commercial thing—I refer to the administration of bacterial vaccines as a means of prophylaxis against diphtheria. That is, the administration of killed cultures of diphtheria bacilli. To illustrate, a man here has had typhoid fever. I have not had it. If our blood is examined, neither one of us will show any antibody, agglutinin, opsonin, etc. Neither one shows it any more than the other. Inject each one of us with killed cultures of typhoid bacilli, or give us a drink of typhoid-polluted water, if you please, and examine our blood twenty-four to forty-eight hours afterwards, and we will find his blood loaded with antibodies, and mine has none. Examine our blood two weeks later, and they will both show antibodies.

DR. ESPY WILLIAMS, of Patterson: I think something should be said in regard to the use of serums in general. Personally, I have not had so much experience with them, but my associate has used them to a considerable extent. We find that the use of serum, either antistreptococcic or antidiphtheritic serum, in almost any septic condition, results beneficially. I am no pathologist, and I really and honestly can't say that I understand the opsonic theory practically and thoroughly well, but I must say that the administration of any serum in any given case—diphtheritic, streptococcic or staphylococcic infection—has certainly produced good results. I believe that it doesn't make much difference what serum we give. We have in our practice given the antidiphtheritic serum in cases apparently septic, without any diphtheritic indications whatever, and have found good results sometimes, and I believe it simply comes from the administration of the serum itself, no matter what antitoxin means, or what power it may have over the metabolic processes. I would advocate surely the administration of any serum whatever in any given case. I believe that in a case of acute sepsis, if the practitioner is unable to get a sufficient amount of antistreptococcic serum, he can give antitetanus serum or antidiphtheria serum without any harm whatever. I believe it is the serum itself which produces the results and that produces the antibodies that produce the results.

DR. LEMANN (in closing): In regard to what Dr. Williams

has said, I would emphasize again that the remarks which I made do not apply to the therapeutic use of serum. I think it is a question whether we ought to use it prophylactically. I think that Dr. Bass has made a very valuable suggestion when he stated that probably in the future we would have to rely for prophylaxis upon the vaccines rather than serum. The distinction is very plain. Vaccines are simply the dead bodies of bacteria, without any horse serum. It is the horse serum that does the evil—in fact, any serum, any particular albuminous serum. If you inject an individual with any serum, and then reinject the same individual with the same serum, that individual will react anaphylactically. But in the future we can use horse serum for therapeutic purposes perfectly safely.

Dr. LeBeuf asked whether some work had not been done along the line of determining to what individuals serum might safely be given. Klemperer has made a suggestion—not a very practical one—that we could determine whether it would be safe to give serum to a given individual by taking a small amount of blood from that individual and injecting that blood into a guinea pig, and then injecting the guinea pig with horse serum also. If the guinea pig reacts anaphylactically, it is unsafe to give the patient horse serum. But it is very apparent on the face of it that we cannot delay for any such experiment as that.

With regard to the question asked by Dr. Kimbell, I must confess my ignorance. I do not know whether one c. c. of normal horse serum would be enough to guard against anaphylaxis in the future or not. Judging from experiments on animals, I should say not.

I merely wish to emphasize again the point I brought out in the paper, that in the case of the guinea pig one-millionth part of a cubic centimeter was sufficient to sensitize the animal to future injections.

Blue Sweat. (Indicanhydrosis.)

By J. A. STORCK, M. Ph., M. D., New Orleans.

It is well known that, after the kidneys, the skin is the next most important organ of elimination. As proof of this, urea, cholesterin (1), kreatinin (2), ammonia, fatty volatile acids, sulpho-ethers

(3), phenol, skatol, and the aromatic oxyacids have frequently been found in the sweat. Indols have also been found in the sweat by Kizio and Amann (4); and, I myself have found indol twice, including the present case.

This much being proved, it is not a far step to the explanation of blue sweat. Combs (5) thinks it is due to some special idiosyncrasy in the subjects in whose intestine large amounts of indol are formed. I am of the opinion that a partial explanation of the phenomenon can be found by presuming that when the intestine is vulnerable, and the kidneys for some reason are not able to eliminate the large amount of indol fast enough, it finds its way through the sudoriferous glands. On coming in contact with the air, it undergoes the change to indigo blue in the presence of other substances eliminated with it. This might be particularly true in persons of uncleanly habits. While this partial explanation is not entirely satisfactory, it is the best which I have to offer.

Ellinger thinks that "in the normal small intestine, the proteid digestion is performed solely by the enzymes, the bacteria taking no part; per contra, when stasis or obstruction occurs the microbic digestion predominates and indicanuria results."

Apropos the statement of Ellinger, the finding of indican in the urine in large amounts is now accepted to mean that putrefaction of proteids, or that some septic process has taken place in the body; and, in the greater number of cases, it is in the small intestine.

Amann made a careful study of the three cases reported by him, and demonstrated the presence of indigo in the sweat and a pronounced excess of aromatic substances in the urine. My own findings in the case herein reported coincide with those of Amann's cases.

Judging from the few reports made of this interesting condition, it might be said to be of infrequent occurrence. Or, has it merely been overlooked? For, it is strange that Combs (6) saw two cases of blue sweats and Amann (7) three cases. Gans (8) saw four cases of blue spots on the skin due to indican. This makes a total of nine cases, if the four cases of blue spots on the skin reported by Gans can be classed as blue sweat. These are all the cases which I could find reports of in the literature available to my research.

The elimination of indol and skatol in the sweat might explain the disagreeable odor of the negro. Blue urine (9) due to the presence of indigo blue, and indigo calculi have been observed.

The specific gravity of urine containing indican is usually high, but may be as low as 1007. The amount of indican in the urine may vary from day to day.

Pronounced indican reactions in the urine have been found during the course of the following conditions: Diffuse peritonitis, ileus, catarrh of the small intestine, typhoid fever, gastric ulcer (10, 11), hyperacidity (12), intestinal tuberculosis, pulmonary phthisis, carcinoma of the esophagus and stomach poisoning by oxalic acid causes considerable indicanuria. It is also noticed that oxaluria is often present with indicanuria. Progressive indicanuria enables us to make a diagnosis of stasis or obstruction at a period devoid of clinical indications.

Indications for the elimination of the cause of indican production:

It is the consensus of opinion that thorough intestinal antiseptis is impossible. However, much can be accomplished by clearing out the intestinal tract and introducing a new culture medium, one in which the bacteria present will not thrive so well. Preparatory to this, calomel and urotropin may be used, and then the feeding with sour milk may be begun. The rationale of a sour milk diet is that lactic and succinic acids prevent nitrogenous putrefaction, but their action is of short duration. It is therefore, necessary that, along with the sour milk, such agents as thioform, ichthyol, tannalbin, etc., be employed.

If the stomach contents are deficient in hydrochloric acids, its administration is indicated.

Grape ferment and brewers' yeast are energetic as antiputrefactive agents and may be employed in suitable cases.

The future diet of the patient should be carefully formulated. A lacto-farinaceous diet meets the requirements best. A gradual return to a more liberal diet may be brought about by degrees, allowing only a small amount of proteid.

M. J., female, consulted me for pain in the abdomen, and for diarrhea, which came on occasionally in the morning.

She is 27 years of age, a seamstress by occupation, is of average intelligence, married, and has two healthy children.

Height 5 feet 4½ inches, weight 103 pounds.

Family history, negative for tuberculosis.

Personal history, occasional headaches, nausea at times, never vomits. For the past two years or more, she has been constipated.

Again the dejections were semisolid, and, from time to time, she had early morning diarrhea. Had night sweats several times. Never had typhoid fever, and previous to present trouble was apparently in good health. She has lost twenty pounds in weight in eighteen months.

Condition as recorded at the time of examination:

Skin of face, pale. Body, somewhat emaciated.

The axillary region was stained blue, as were also the arm holes of the undergarments.

Patient stated that she had noticed a blue color on skin and garments on two other occasions, but thought it might have been caused by some stain. At the time she came under my observation, no medicines were being taken, and the color could not have come from the garment worn, since all of them were of light color. I had the patient wear a pad of absorbent cotton in each axilla; also to wear white undergarments with instructions to report to me daily, so that I might examine the pads. After wearing them three days, they became blue over the part in contact with the skin. I also had her collect some perspiration in a small vial and examined it for indol, which I found.

Left lung normal, harsh breathing and prolonged expiration at apex of right lung anteriorly. Heart normal, arteries somewhat tense. Riva Roca 145.

Tongue normal; lower gums showed well-marked Rigg's disease.

On inspection, the abdomen did not show anything abnormal; pressure in the mesogastrium above the umbilicus proved somewhat painful; no other abnormality was detected.

Blood Picture: Red cells 4,800,000; white cells 8,000; hemoglobin 90 Tallquist.

Vaccination with tuberculin after the method of Von Pirquet gave a positive reaction.

The dejections were foul-smelling and contained mucous shreds, bile pigment, bile-tinged epithelial cells, and muscular fibres. No blood was present, nor were there any intestinal parasites, or ova.

Three examinations of the urine resulted as follows:

COLOR	Reaction	Sp. Gr.	Albumin	Sugar	Indican.	Urea per cent	Oxalates 500 x diam.	Other Crystale.
1 Pale Yellow	Acid	1028	None	None	Heavy	3.1	20 to field	Uric Acid
2 " "	Acid	1026	None	None	Faint	2.4	6 to field	Uric Acid
3 " "	Acid	1026	None	None	Trace	2.2	3 to field	Uric Acid

Two qualitative examinations of the sweat from separate days showed the presence of indigo.

Two examinations of stomach contents proved normal.

Saliva was normal, there being no reaction for indican.

The two-hour temperature taken for four consecutive days was subnormal (97° to 98° F.) in forenoon. The afternoon and evening temperature ranged from $98\frac{2}{5}^{\circ}$ to $99\frac{3}{5}^{\circ}$ F.

The pulse ranged from 86 to 90 in the forenoon, and from 95 to 105 in the afternoon and evening.

Diagnosis: Pulmonary tuberculosis, with probable tuberculous enteritis.

TREATMENT—As the patient was on a full mixed diet before coming under my care, my first instruction was to restrict the proteid intake, until I could try to correct the apparent putrefaction going on in the intestine.

In order to clear out the intestine, thus getting rid of the putrefying substances and much of the bacteria as possible, I ordered the following:

R	Hydrarg. chlor. mit.	gr. i.
	Urotropin	gr. xv.
	Sacchar. lact	℥ ii.
M. et. ft. cts. No. X.		
Sig.—One every hour.		

The following morning, I ordered two teaspoonfuls of Carlsbad sprudel salt to be taken in hot water. Several copious evacuations resulted.

The patient was now in a condition to begin her new diet, which I advised with some reluctance, knowing full well the necessity of nitrogenous food in her condition. For four days, the diet consisted of curdled milk, whey and buttermilk (made with Lactone tablets). In thirty-six hours, there was a marked diminution in the amount of indican present in the urine; and, at the expiration of forty-four hours only the faintest trace of indican could be detected.

Now she was allowed Nestle's food, barley-flour, oatmeal, flour in buttermilk, whey and cream cheese, baked mashed potatoe and bread, and then gradually back to a liberal diet. Whenever a

large amount of proteid, or fat, was taken for several days, a pronounced indican reaction could be shown in the urine, but never any more blue sweat was observed.

BIBLIOGRAPHY.

1. Capranica, Malay's, XII, p. 190.
2. Cramer, *Arch. f. Hygiene*, X.
3. Kast, *Zeits. f. Phys. Ch.*, XI, p. 501.
4. Amann, *Jour. Suisse de Chemie*, p. 22, 1902.
5. Combe, Intestinal Auto-Intoxication, 1908.
6. Combe, *loc cit.*
7. Amann, *loc. cit.*
8. Gans, *Berliner Klin. Wochen.*, May 29, 1905.
9. *Lancet*, Oct. 18, 1902.
10. Allen A. Jones, *N. Y. Med. Jour.*, April 28, 1900.
11. C. E. Simon, *Am. Jour. of the Med. Sci.*, 1895.
12. J. A. Wesener, *Jour. A. M. A.*, April 6, 1901

DISCUSSION OF PAPER OF DR. J. A. STORCK.

DR. T. S. DABNEY, of New Orleans: I would like to ask for my own information, for I do not know anything about it, never having seen a case, if Dr. Storck does not think that it is possible that these people take so many of these headache cures—we see these cyanotic conditions of the skin—would it not be possible or even probable in those conditions that the sweat would also take the tinge of the skin, because we have all seen those cases where the skin is blue from acetanilid, and I would like to ask if these people were not neurotics or headache fiends and had been loading up on some of the aniline series.

DR. GEORGE W. ROBINSON, of Shreveport: I would like to ask Dr. Storck whether there was any history of rheumatism in this case or not?

DR. STORCK (in closing): In regard to the question asked by Dr. Dabney, I would say that the blue discoloration in persons taking coal tar drugs is due entirely to the cyanosis. I think that is the real explanation.

In regard to Dr. Robinson's question, I will say that the woman gave no history other than the one I elicited from her. It is a fact that indol is present in large amounts in tuberculosis. In fact, it is one of the means of detecting intestinal tuberculosis. So it is common to find indican in the urine of these cases, it is a routine practice in our clinic to test the urine of tuberculous subjects for indican to determine the amount of putrefaction. It is a valuable diagnostic means of making out a diagnosis of ileus. Indi-

canuria means, usually, a stasis really in the small intestine. It is practically impossible unless you have an abscess somewhere to get a reaction of the indican, or unless you have putrefaction and stasis in the small intestine. There was no history whatever of rheumatism in my case. I must confess that I do not know that that would have much bearing on the subject, because the formation of indican is one purely and simply of putrefaction somewhere in the body, and more particularly in the small intestine, and there was indol discovered in the sweat; that is, indigo blue; and it responded to the tests. We not alone depended upon the discoloration of the absorbent cotton, but we collected some of the perspiration and made an analysis of it and discovered indol in it.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN. *Secretary*, DR. C. P. HOLDERITH.
141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.
DR. HOMER DUPUY and DR. H. D. KING.

MEETING MAY 10, 1909.

DISCUSSION—SYMPOSIUM ON CHRONIC DIARRHEA.

DR. DABNEY: Mr. President, I regret very much not having heard all of Dr. Dock's paper. In the past four or five months I have seen a case of amebic dysentery in Algiers, and this patient never went out of the State, except to the Gulf Coast. Lately I have seen another case, also in Algiers, and the patient was a young lady. For a long time I have seen cases in tropical habitats. English doctors, in the matter of treatment, nearly all of them use sulphate of magnesia instead of sulphate of soda. They say it acts much quicker and always combine it with hydrochloric acid, and the good derived seems to be due to the acid. Yet this does not cure. The old ipecac treatment has fallen into disuse, because of the inert quality of the drug. This treatment is often preceded by the administration of 15 drops of laudanum. I am thankful to Dr. Dock, for he has given to me the method of administering ipecac without producing emesis; that is, putting the ipecac in

pill form coated with salol. I can safely say that ipecac is the only agent that we can administer and get results. As to Dr. Patton, I agree with him about the use of silver nitrate, but must disagree with him concerning the mode of administration. For the druggists do not dispense the drug correctly. As to enemas, I think they cannot be too highly commended. Then, we should give fresh silver nitrate and wash out the bowels before hand. In children, feeding is the thing and we should give something that does not ferment and yet still be nutritious.

DR. STORCK: Speaking of Dr. Dock's paper, as regards treatment. I have often obtained best results in the treatment of amebic dysentery with acetozone alone or in conjunction with small doses of arseniate of copper. Ipecac has many champions and often proves efficacious. Change of the culture medium is always to be considered. With this object in view, buttermilk products, etc., at times, seem to influence the course of the disease favorably. I agree with Dr. Patton that nitrate of silver is of considerable value in the diarrhea of typhoid fever. As to the so-called nervous diarrhea, I have seen many cases where involuntary defecation would take place on the slightest provocation. One notable case was that of a woman who would defecate whenever she got into a street car.

DR. SALATICH: While an interne at the Charity Hospital I had the good fortune to treat all such cases then existing there at that institution. I had used all manner of treatment—quinin in all strengths, covering a period of months and then stopping for a short while and the amebæ were always present. Also used water, silver nitrate solution, salt solution, eucaloitol, eucalyptus, etc., with the above results. I have also used sulphuric acid lemonade and dieted them by giving predigested foods and all to an unsatisfactory end. Five authors claim that they are secondary to other conditions and that they are found in healthy subjects in five out of twenty. In my way of thinking, I should judge that appendicostomy is the only rational form of treatment. Before closing, I would like to say that I have tried the cold treatment as low as 40° F. and again, in other cases, the warm treatment, with unpromising effects.

DR. GUSTAV KLEITZ: I have known from experience in dysentery and diarrheal conditions that bile is absent; when ipecac is

given, bile begins to appear and the cure is almost certain. I have given it in pellet form $7\frac{1}{2}$ grains each, covered with salol, and have effected a cure with 7 or 8 of them. The general practitioner looks for results and his treatment is based on ordinary principles. I always wash out the bowels in dysenteric and typhoidal cases with warm sterilized water and boric acid, for the last few years, with exceedingly good results.

DR. BASS: In an experience of five years, beginning with my early practice, I have had some definite impressions as to the indications for treatment of acute diarrhea. Mostly these acute diarrheas are due to some intestinal saprophytic process, either directly or indirectly. Most of them require non-proteid food. Purgatives by emptying the canal will win only one-half of the battle. We should keep them empty and for a period sufficiently long for the remaining few bacteria to be killed out by the intestinal as well as by the gastric juice. Milk or Ducros should not be allowed for 24 or 48 hours, even in smallest children and in adults much longer. The clamor for food on the patient's part is sometimes great, and if it is given in small quantities the digestive juices are stimulated and the food is digested. Sour milk, as mentioned by Dr. Storck, is especially beneficial. I have used ipecac in the form of salol-coated pills in amebic dysentery and these pills were retained very well and within 24 hours after the giving of ipecac no amebæ could be found and in one case they were absent two months afterwards.

DR. JACOBY: I would like to ask Dr. Gessner if the appendix were brought out in the lumbar region, wouldn't that avert a ventral hernia? Silver nitrate can only do good by local application and I do not believe in its use in irrigations of the colon.. Saline solution will be equally as effective.

DR. McGEHEE: About twenty-five years ago, while practising in the Mississippi Valley, nothing was known of amebic dysentery at that time. There was encountered every few years in the autumn season a fatal disease called "malarial flux," which was treated under the standard treatment recommended for dysentery, salts and opium, or astringents and opium. Fifty per cent. of these cases would prove fatal. The mucous membrane of large bowel seemed to be the structure to suffer most. In postmortem examination of two cases, we found none of the lining of the colon

normal. In fact, most of the mucous membrane was denuded or the little that remained was congested and infiltrated and firmly adherent to the second coat of bowel, which seemed to be normal. No ulceration or evidence of disintegration. With the hope of disinfecting the bowel with nature's intestinal antiseptic, the greatest of all bowel antiseptics, the bile, we gave 1/60 of bichloride of Hg. (in aqueous solution, rendered permanent by addition of ammonium muriate) after each action containing mucus or blood, until the patient was well, which was the result in over 90%. Only other treatment was to keep patient mildly cinchonised and on such diet as was absorbed before it reached the lower bowel. The benefit of large doses of ipecac is due to increase bile and the Hg. is so much more easily administered, especially to children. It requires some nerve to continue this treatment with nervous parents, frequent actions and little change being seen from day to day, but these changes will be favorable, unless an opiate astringent or a complication will change results. It is pleasant to note that advanced surgeons have found some use for the appendix, but to add trauma and anesthesia to a patient already depressed by an intractable disease for the purpose of irrigating the bowel, does not appeal to me favorably. We can reach the ileo-cecal valve by high medicated enema and thus obtain the same end. As regards *reflex nervous* cases affecting the alimentary canal, there is no doubt. Not long since I saw the incision of gums that were pressed forward by a growing tooth, relieve as if by magic, obstinate vomiting that had lasted long enough and made the attending physician share the apprehension of the parents and ask for consultation.

DR. DEBUYS: In the five years from 1900 to 1904 inclusive, there were in New York City more deaths from diarrheal disease under two years of age than there were deaths at all ages from the five most common infectious diseases. The catarrhal and follicular are the most frequent chronic types seen in the early years of life. The membranous variety is not often seen in its chronic form, because of its fatality in its acute stage. The amebic type is rarely seen in infants and young children, probably because their water is mostly boiled. However, it has been seen, there being five cases reported in Baltimore, the youngest being two years and eight months.

About feeding in diarrheal disease in infants and children, no rule can be laid down.

There is one form of diarrhea which has been left out to-night, and that is fat diarrhea.

The associated pathological lesions found in children are: The lungs; in which we have hypostatic congestion, broncho-pneumonia, and tubercular broncho-pneumonia. The liver may be fatty in those cases of prolonged illness, or where there is much wasting. Abscess of the liver is rare. The kidneys may show cloudy swelling, or nephritis. Effusions into the serous cavities are rare.

DR. SAM LOGAN: Dr. Raymond's treatment, or the ipecac treatment, is oftentimes preceded by 15 drops of laudanum. These patients are generally starved 24 hours, kept quiet and hot water placed over the stomach. I would like to ask if Dr. Dock has had any experience with this treatment? I had a case of five years' duration which improved under this treatment. I disagree with Dr. McGehee in that high enemas will generally reach the ileo-cecal valve, for I have seen this demonstrated while with Tuttle. Dr. Gessner has opened up a field for discussion and appendicostomy is the most favorable plan of treatment. Dr. Tuttle, of New York, has performed this with good results and no ventral hernias following and in one case particularly the wound deliberately closed up.

DR. DANNA: I am sorry not to have been here in time to hear all the papers read. I have never done an appendicostomy, but I have a case now under treatment which has not responded to the usual remedies and which I may in the future report as an appendicostomy.

As this is, I believe, a symposium on diarrhea, it might not be out of place to mention here something that made an indelible impression on my memory during my first year as a resident student and during my assignment to a large medical service. One case after another came in of diarrhea in men past middle age with arteriosclerosis and renal insufficiency. If I checked the diarrhea, they died of uremia, and if I did not they died of exhaustion from the diarrhea, bringing forcibly to mind the vicarious relations between the kidneys and the gastro-intestinal tract.

I also recall a case recently operated on at Hotel Dieu that had almost a complete suppression, secreting but two and a half ounces

of urine in forty-eight hours, and who for thirty-six hours vomited almost continuously large quantities of watery fluid. This continued till the kidney function was once more resumed and I really believe that the stomach and upper intestinal tract vicariously relieved the kidneys and saved the patient's life.

I have another similar case now at Touro Infirmary. This patient, aged 76 years, went home after an operation for a large hernia and was perfectly well till taken sick with gastro-intestinal symptoms, including pain and vomiting of large quantities of watery fluid, and almost complete suppression of urine, which was loaded with casts of all kinds. Hypodermoclysis and other means which restored his kidney function and gave us a urine free from albumen, and casts, and were followed by a disappearance of the gastro-intestinal symptoms.

I cite the above experience to bring out the fact that diarrhea or vicarious depletion through the gastro-intestinal tract in any other way such as by copious watery vomit, may be a symptom of renal insufficiency and a means of prolonging or saving life.

DR. DOCK (in closing): I wish to combat Dr. Keitz' statement regarding the impossibility of making accurate diagnoses and the importance of beginning treatment as soon as the patient is seen. The same might be said about an injured arm, but if a physician should put up an elbow without examining it as carefully as possible, and without knowing whether there was a fracture or dislocation, he might easily be accused of malpractice. I do not see why in medical work we should not be just as careful. Dr. Bass has said many things that I had thought of saying, and I am all the more pleased by our agreement because he gained his experience largely in private practice while mine came from the less difficult field of hospital work. Silver nitrate is a valuable remedy, but it gets its credit very often for results due merely to the irrigation. I have often seen it given in such a way as to be precipitated before it got into the bowel, and have even seen it given in salt solution. Given efficiently it is often very painful, and even in a short time may cause argyria. A warning should always be given when its use is begun, just as, in the case of salol by the mouth, the danger of poisoning should be pointed out. I have reported a case in which a patient took 150 grains of salol a day for a month for diarrhea, and then had severe salicylic acid delirium

with hemorrhage from the kidneys. I would like to emphasize the need of rest in bed, and of absolute diet in the beginning of treatment of chronic diarrheas. Enemata are invaluable, and I think saline solution thoroughly used is equal to any medication in that way. I know that in some cases we can get fluid up to the ileo-cecal valve, but not in all. And although in a pet dog or a neurasthenic patient there may be no danger in such efforts, I think the conditions are different in dysentery and that the danger of perforation is a real one. As regards operations, I think also that irrigation from above is just as imperfect and just as dangerous as from below. Acetozone I consider as useless as nitrate of silver as generally used. It is so quickly decomposed in contact with organic matter that it is not very promising theoretically. My few trials in dysentery were disappointing, and in stomachs with stagnation I found it less effective as a bactericide than saline solution. Simaruba is one of the oldest remedies for tropical dysentery. It does good, but does not seem to cure. Ipecac may be in the same position, but seems to me well worth careful trials.

DR. G. F. PATTON (closing): I shall not take up the time of the meeting by any further argument as to the value of nitrate of silver internally and by enema. Life would not be worth living if our friends all agreed with us, and I am content to go on fooling people who get well by letting them think that treatment has helped to cure them.

As to food which may be allowed, there are doubtless many articles, including malted milk, which are eligible. A favorite plan of my own has been to allow about the beginning of convalescence raw beef scraped into pulp by rubbing it against the meshes of a kitchen sifter. Thus prepared raw meat can be very advantageously given, properly seasoned with salt and pepper, say a teaspoonful at a time and followed, if thought advisable, by a little pepsin. I am a warm advocate of ipecac in the amebic form of dysentery, but as it is practically impossible to give it in a huge bolus to young children I will relate as a suggestion to those present, how being once at wit's end in one of the worst cases I ever saw, the patient being a three-year-old child, I adopted the plan of giving the fluid extract of ipecac, beginning with one drop and increasing the dose by one drop every hour until the limit of tolerance was reached, which in this case was four drops.

It may have been a coincidence, but improvement began at once. I am inclined to believe that ipecac, besides its cholagogue effect, actually exerts a beneficial local action in the bowel.

DR. GESSNER (in closing): In answer to Dr. McGehee, I will say that an ordinary appendicostomy should be done in twenty minutes and therefore involves but a short anesthesia. In the adult it can be done with cocain, though the patient be ever so weak; for children we must use a general anesthetic, as cocain is not generally applicable in them. Referring to Dr. Jacoby's remarks, the lumbar operation increases the time required and will not necessarily prevent hernia. Taking up Dr. Dock's discussion, if the ulcers are in the rectum, a left colostomy is the thing to do, the cecectomy or appendicostomy being indicated in lesions higher up.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Eradicating the Plague.

We are in receipt of a volume giving an account of the work done in San Francisco to eradicate the plague by the local, State and national sanitary officers assisted by the Citizens Health Committee. It is in the shape of a report of the Citizens Health Committee and gives an interesting account of its work, including descriptions of the measures taken, the text of ordinances and the circulars used to enforce sanitary measures, on the one hand, and to instruct the public, on the other.

Aside from the interest and instruction furnished by the perusal of this book, what strikes us most forcibly is the analogy between the situation in San Francisco at the time of the second outbreak of the plague, the work done there by the health authorities and the Citizens Health Committee, and conditions in New Orleans and the work done here by the local authorities and those of the Public Health and Marine Hospital Service at the time of the last outbreak of yellow fever in 1905.

The same indifference, the same tendency to hide or minimize the evil, the same difficulty to make the public realize the seriousness of the situation, the same kind of campaign of education and, finally, the same success in teaching the public the true means of propagation of the disease and, consequently, its eradication with the final stamping out of the epidemic. In both instances it was the co-operation of all those interested, as well as of the various health authorities which led to success.

The Citizens Health Committee of San Francisco, her people in general, her City and State authorities and, finally, if not principally, the Federal sanitary officers assigned to service at that time are deserving of the highest commendation for the valuable

work accomplished. Over twenty of the Surgeons and Acting Surgeons of the United States Public Health and Marine Hospital Service were on duty at different times from the fall of 1907 to the spring of 1909 under P. A. Surgeon Rupert Blue, who was in command, and P. A. Surgeon W. C. Rucker, who was Executive Officer. The two just named are well and favorably known here in New Orleans and we desire to extend to them our congratulations.

It will not be out of place to use this occasion in order to call the attention of the medical profession and of the health authorities to the fact that this City should not be considered as in no danger from invasion by plague and to recommend that those whose positions or influence make it possible should exert themselves in favor of the inauguration of a campaign against rats.

Neither may it be considered amiss to remind our readers that if the medical profession of the City had more earnestly studied the mosquito doctrine and the propagation of yellow fever, and, in consequence, more strenuously urged the necessity of anti-mosquito work, we would probably have had no yellow fever epidemic in 1905.

Pure Food Inspection.

The State Board of Health will be called upon in a few days to elect an inspector in charge of its Pure Food and Drug Department. A good deal has been said and written about the possible applicants and their qualifications. The JOURNAL has always been careful to avoid championing the cause of any individual for appointment to any public or so-called political positions and it will not depart from its policy on this occasion. It desires, however, to urge upon the members of the State Board of Health that they elect a man solely on account of his qualifications and fitness for office; that the inspector should be any but a man competent to make analyses for himself,—in other words, a good chemist, would appear to the JOURNAL as a farce. This would be evident to the lay mind as well as to the professional. The public would see in the election of a man not thoroughly qualified simply the filling of an additional political berth. The profession has already spoken plainly through a resolution passed at a recent meeting of the Orleans Parish Medical Society.

Abstracts, Extracts and Miscellany.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

PSEUDO-SYSTEM DISEASES OF THE SPINAL CORD AFTER STOVAIN ANESTHESIA.—(W. Spielmeyer, *Neurol. Centralbl.* Jan. 16, 1909. S. 69)—The author has found a system degeneration in the spinal cords of apes and dogs experimented on with stovain. There is a degeneration of the posterior columns which must be a posterior root degeneration, since only the exogenous fibres are affected. The primary lesion involves the extra-medullary part of the posterior roots, the disease of the intra-medullary portion being apparently only a result of injury to this part. It would seem that the roots are attacked and destroyed on their way through the subdural space to the spinal cord by the circulating stovain. In addition, a degeneration is met with all round the periphery of the cord. This would appear to be the direct result of the stovain acting on the region with which it comes into closest contact. VAN W.

A NEW SIGN FOR THE DETECTION OF MALINGERING AND FUNCTIONAL PARESIS OF THE LOWER EXTREMITIES.—C. F. Hoover (*Jour. Am. Med. Asso.*, 1908, 1i, 748) asserts that as this sign of "complimental opposition" depends on a normal function always exhibited in healthy persons and invariably present in the sound leg by patients suffering from hemiplegia or paresis of the other, due to some pathological lesion, it is of some importance and of very broad application. The sign is as follows: If a normal individual lying in a dorsal position on a couch be asked to lift one foot with the leg extended, the heel of the other foot will be observed to dig or press into the couch and the extent of pressure may be determined by placing the hand under the tendo Achillis of that side; the heel of one foot is employed to fix a point of opposition against the couch during the effort at lifting the other leg; this always occurs if a healthy person makes a free and uninhibited effort to raise the leg. In the reverse order, the same principle holds true; for if a person is requested to press the foot or leg against the

couch, there will be a counter lifting force in the other leg. In patients with hemiplegia or monoplegia of one leg, in attempting to elevate the extended and paralytic leg from the couch, the normal foot exhibits the same sign, as above, whether there is any voluntary muscle strength exhibited or not in the affected side. On lifting the normal leg against resistance, however, he will exhibit an opposition with the paralytic leg directly proportional to the voluntary muscle strength he is able to employ when a display of voluntary muscular power in the paralytic leg is exacted. Hoover has found this sign present in a large number of hemiplegic patients and reports four instances of supposed paresis in malingerers and hysterical subjects, with a quick disproof of their supposed affection by this sign. In these cases, it is important that the person examined be unfamiliar with the test and that his attention be fixed on the paralytic leg so that no voluntary cerebral inhibition on his part may interfere with the test.

Working with this same sign, J. Lhermitte (*Sem. Med.* 1908, 28, 565) reports upon its use in a number of cases of organic hemiplegia and confirms Hoover's assertions. He thinks that the sign throws much light on the mechanism of hysterical paralysis, as the feeling of the movements of the muscles by the hand under the leg, even in those cases incapable of any volitional movement, shows that in hysteria the subconscious movements are retained unimpaired, while those under the control of the will only are suspended. The mechanism of hysterical paralysis is of a different order from that of organic paralysis and in the first, the trouble is not the consequence of a functional disorder limited to a definite anatomical system, but is the result of a psychic disturbance, and thus is essentially the creation of the mind. He thinks that this sign is due to a natural subconscious effort to maintain static symmetry in the pelvis as the leg is lifted. The digging of the leg into the couch does not help to lift the leg, but helps to maintain this balance.

VAN W.

THE REFLEX OF THE FINGERS IN HEMIPLEGIA.—Jacobsohn (*Deut. Med. Woch.*, 1908, 34, 1971) refers to the very great value of the Babinsky reflex in the diagnosis of lesions of the pyramidal tracts, and remarks that little attention has been given to the reflexes of the upper extremities. Those which have thus far been studied have not a value commensurate with the Babinsky plantar

reflex. Jacobsohn has studied the fingers in hemiplegics and has found a volar flexion of the fingers on the affected side, comparable to the dorsal flexion of the toes in such patients. When the volar flexion is very marked, the finger tips are pressed against the palm of the hand. In such cases, the patient is able to extend the fingers slightly, if at all, since a permanent contracture exists. In other cases, the flexion is less marked, and often is entirely lacking. The freedom of motion of the fingers and hands is usually directly proportional to the degree of contracture. To elicit the reflex which Jacobsohn has discovered in the fingers of hemiplegics, one proceeds as follows: The examiner stands on the side of the patient which is affected, and the patient's arm rests on the hand of the examiner so that the thumb is on the outer side. One now taps on the lower end of the radius or in its neighborhood; and, if the reflex is positive, a definite flexion of the fingers, especially of the terminal phalanges, results. In other cases (negative) the fingers remain extended. Jacobsohn finds the reflex constantly present in typical cases of hemiplegia, both mild and severe, and it is especially helpful in the mild ones. The reflex runs parallel with the Babinsky sign in hemiplegia. In some cases of the neurasthenia in which all the reflexes are exaggerated, Jacobsohn has found a slight flexion of the finger and hand after percussion of the radius. But this is eliminated when the patient is told to extend the fingers well.

VAN W.

TABES QUESTIONS.—H. Korn (*Monatsschr. f. Neur. u. Psychiat.*, Dec. 1908, *Bd. 24, S. 479*) gives here some useful figures concerning 482 cases of tabes he has personally examined. Questions such as age of onset, incidence in various trades, frequency of different symptoms, sterility of women, are dealt with, and the generally accepted conclusions confirmed. The main object of the investigation, however, was to study the relation between previous mercury treatment and the onset of the disease. In a previous article Kron, and in two by Schuster and Collins, the anti-Fournier standpoint is taken as to the inefficiency of previous treatment. Kron has now carefully investigated his cases with respect to the extent and nature of previous treatment, and finds that the more extensive the treatment the earlier is the date of onset of the tabes. He considers that the treatment in no way prevents the later occurrence of tabes.

VAN W.

FACIAL PARALYSIS: A STUDY OF THREE HUNDRED AND THIRTY-FIVE CASES.—(G. A. Waterman, *Jour. of Nerv. and Ment. Dis.*, Feb. 1909, p. 65.)—The data upon which this paper rests are gathered from 335 cases of facial paralysis, for the most part seen at the out-patient department of the Massachusetts General Hospital. The majority were personally examined by the author. All cases due to ear disease, fracture of the base, cerebral syphilis, tumours, and glands were excluded. Combining the series of cases published by Gowers, Bernhardt, Hubschman, and Sossinka with his own the author finds that among 968 cases, 52% were males and 48% were females. Of these 335 cases the right nerve was affected 163 times, the left on 157 occasions, while in two instances both were involved.

The original observation of Minkowski that the process is of a parenchymatous nature, similar to that found in toxic forms of neuritis, has been repeatedly confirmed, and the question is asked by the author, what are we going to accept as predisposing factors?

An hereditary neuropathic taint has been maintained by Neumann, who among 37 patients, found a record of nervous disease in the near relative to 24. In five of his cases, facial paralysis had occurred in other members of the family, and in one three sisters had suffered. Many inquiries on this point have led the author to believe that neuropathic relatives are no more frequent in families of those affected with facial paralysis than are found in families taken at random.

Fright has been suggested as a possible cause. Thus in one case, facial palsy appeared in a woman the day after her child fell from her arms; in a second instance, the day after the patient had been run away with by a horse; while in a third, it followed the shock of a sudden death in the patient's family. It is probable that coincidence accounts for this apparent association.

Reik considers the ear of importance in the etiology of the neuritic form of facial palsy. He examined 12 cases, 10 of which had initial aural pain, and found positive evidence of middle ear disease in all. In 22 cases sent by the author to an aural surgeon, within seven days of the onset of the paralysis the middle ear was normal in 19, while in 3 there was a mild degree of congestion.

As favoring the view that the action of toxic substances on the

nerve may play an important role, the author refers to three reported cases in which a toxic retrobulbar neuritis appeared at a later date.

A history of exposure to cold is too frequent to be explained by coincidence. The author's statistics clearly demonstrate that attacks of facial paralysis do not occur more frequently at any particular time of the year, and he concluded with Bernhardt that although exposure may precipitate an attack, the real cause lies in the lessened power of resistance in the individual.

The explanation of recurrent attacks and of several cases appearing in the same family is probably to be found in some anatomical predisposition, or in the former instance, in a lowered resistance to the toxic substance which causes the attack. Petit has recently analyzed the reported cases of recurrent facial palsy.

The author's statistics indicate that between the ages of forty and sixty severe attacks are more frequent.

That severity of the initial pain is no indication of the severity of the palsy is another point which these statistics demonstrate. The author's experience has convinced him that treatment by galvanism plays no part in the causation of hemi-spasm which is no uncommon sequel of a facial palsy. Theoretical consideration as to the cause of contractures are discussed.

VAN W.

CLINICAL AND ANATOMICAL ANALYSIS OF 23 CASES OF INSANITY ARISING IN THE SIXTH AND SEVENTH DECADES, WITH ESPECIAL RELATION TO THE INCIDENCE OF ARTERIOSCLEROSIS AND SENILE ATROPHY AND TO THE DISTRIBUTION OF CORTICAL PIGMENTS.—(E. E. Southard and H. W. Mitchell, *Am. Jour. Insan.*, Oct. 1908)—In a series of 472 cases autopsied (1902-1907) at the Danvers Insane Hospital, Massachusetts, U. S. A., there were 23 cases in which the onset of mental disease occurred beyond reasonable doubt between the sixth and seventh decades of life. Cases of dementia paralytica, cerebral tumour, and extensive focal brain lesion were omitted from consideration. The cases can be simply classified as follows:

Alcoholic	2 cases.
Paranoiac	5 cases.
Delirious	4 cases.
Maniacal	3 cases.
Depressed	9 cases.

Hereditary factors of more or less importance are present in 47% of the series as a whole, or in 74% of those cases in which reliable histories were obtainable. Peripheral motor or sensory disorders were strikingly few, as also signs of focal brain lesion. Hallucinatory disturbances were found in 56%, purely auditory in eight cases, and auditory combined with visual in five cases. Delusions occurred in 65%, allopsychic in 12 cases. Very striking was the lack of amnesia in these cases. Three cases showed amnesia for recent events, five cases for both recent and remote events, three cases (2 alcoholic) fabricated. Disorientation occurred in four delirious cases, in two alcoholic cases, and in two others. Perhaps seven cases might be placed in the maniac depressive group of Kraepelin. Katatonic features were strikingly rare, since but two cases of the paranoiac group showed katatoniform signs, possibly mere reactions to delusions.

For the clinical details, reference must be made to the original paper.

Theoretical interest lodges chiefly in the possible relation of these cases to arteriosclerosis and to brain atrophy. Only four cases showed well-marked arteriosclerosis, and the arteriosclerosis in these cases (with duration of 10, 12, 22, 17, and 17 years, respectively) appears to be a complication rather than an etiological feature. In this case, three were paranoiac and one maniacal. Nor are the insanities arising in these decades due to the premature onset of senile atrophy. Eight out of 11 female brains were atrophic—the average age at death was 65.6, the average duration 2.7 years. The atrophy is probably a function rather of age at death than of insanity in these cases.

A study of the distribution of pigment in the twenty-three brains (harking back to the somewhat neglected field of Bevan Lewis) demonstrates extreme and interesting variations in the cases examined. Perivascular cell pigmentation is almost uniform in different areas of the same case, bar focal destructive lesion, but varies in degree in different cases. Neuroglia cell pigmentation, when of general distribution, probably varies more or less directly with age. Nerve cell pigmentation (iron-hematoxylin) is not a function of age. It is premature to relate the amounts and distributions of nerve cell pigments with different mental diseases.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES HOUSE OF DELEGATES (*Continued*).

MAY 4, 1909, 8 P. M.

The TREASURER presented his Annual Report as follows:

CASH.

Receipts.

Balance on hand, received from Dr. Lazard....	\$ 730.34
Dues 1907	\$ 9.00
Dues 1908	87.00
Dues 1909	2,155.00— 2,251.00
	<hr/>
	\$2,981.34

Disbursements.

Exchange	\$ 5.49
On Voucher of President and Secretary—	
Sub. to JOURNAL	1,006.25
Postage	112.96
Salary	275.00
Printing	279.00
Office supplies	23.26
Extra help	8.00
Advertising	28.65
Expenses Legislative Committee.....	69.85
Treasurer's bond	5.00
Incidentals	25.00
Rent	60.00

Total disbursements.....\$1,898.46

Balance on hand May 4, 1909..... 1,082.88

[Many dues have been received too late to be shown on this report.]

Respectfully,

C. C. BASS, M. D., *Treasurer.*

DR. GRANER, Chairman of Council, presented his Annual Report:

Mr. President, Officers and Members of the House of Delegates of The Louisiana State Medical Society:

GENTLEMEN—As Chairman of the Council I have the honor to offer the following as my report:

We have through the State forty-one component societies, a gain of one since our last report.

The following parishes which are organized are practically disbanded: Franklin and Concordia, in the Fifth District; Vernon, in the Seventh District.

We have the following parishes organized since our last report: St. Helena, Livingston, Madison and Jefferson.

Throughout the State at large we still have eighteen parishes that have no medical organization.

The State registration of physicians shows the following:

Regular	1,862
Homeopath	29
No-diploma	77
Registered on certificate	3

Total.....1,971

Dr. J. L. Scales, Councillor from the Fourth Congressional District, has resigned on account of his absence in Europe.

Respectfully submitted,

(Signed) J. GRANER,

Chairman of Council.

DR. EUSTIS, as Councillor from the Third Congressional District, presented the following report:

To the President and Members of the Louisiana State Medical Society:

GENTLEMEN—As Councillor from the Third Congressional District I beg to submit the following report:

It has been clearly demonstrated in my district that the Parish Society is one in name only, for, with the exception of Lafayette Parish, none of the parish societies meet regularly, and when

meetings have been called it has been found almost impossible to obtain a quorum. One may think that this is due to local jealousies, but investigation shows that it is caused by the fact that an intimate acquaintance with each other has already led to an interchange of views and the physicians composing the Parish Society consider their time wasted in listening to each one's pet treatment. Realizing this condition of affairs, a few of us last year organized the Attakapas Clinical Society, which is composed of physicians from all of the parishes of Southwest Louisiana. We have held quarterly meetings in the various towns from New Iberia to Lake Charles, with ever-increasing attendance. The enthusiasm displayed at our last meeting justifies the prediction that the future of the State Society rests upon some such basal organization—*i. e.*, an organization of district societies instead of parish societies.

An evil which is fast increasing in our midst, and which deserves consideration at our hands, is the practice of some surgeons and specialists of dividing fees with the general practitioner who refers the case for treatment. The acceptance by members of the Society of a percentage on all prescriptions sent to any particular drug store, I believe, should be discouraged by the Society, if we are to maintain that respect of the laymen which we have enjoyed heretofore.

Vital statistics are very improperly kept in this district also.

Trusting that the Society will accept this report in the spirit with which it is submitted, viz., an endeavor to uplift our profession, I am

Respectfully,

(Signed) ALLAN EUSTIS, M. D.,
Councillor Third Congressional District.

DR. R. O. SIMMONS, Councillor, Seventh Congressional District, reported verbally, mentioning only one change in membership in his district and referring to the difficulty of holding meetings of the country parish societies, and suggesting that these be urged to hold at least bi-monthly meetings to keep alive. He thought it would be helpful if the President of the State Society would attend the meetings of parish societies at every possible opportunity.

DR. CHARLES CHASSAIGNAC, Chairman of the Committee on Public Policy and Legislation, reported verbally to the effect that

his committee had urged and secured the passage by the State Legislature of the bill, copy of which was submitted to the Society at the last annual meeting. There was no doubt but that this was a distinct advance in medical legislation in this State. The Doctor reviewed some of the difficulties encountered by himself and those who had kindly assisted him in obtaining the enactment of this desirable piece of legislation. No other matter of moment had come before the committee during the past year.

Medical News Items.

THE INTERNATIONAL MEDICAL CONGRESS.—For the benefit of those who are planning to attend this Congress, an announcement is made that ample arrangements have been made for hotel accommodations in Budapest. The cost of the forty-one days' trip, including a week's board in Budapest, meals en route, railroad fare, etc., will be \$395. The American party will sail from New York on August 12. Full information and itinerary may be obtained by addressing Dr. Charles Wood Fassett, St. Joseph, Mo.

Dr. J. H. Musser, of Philadelphia, is Chairman of the American Committee.

ATTENDANCE AT THE A. M. A. MEETING.—The meeting of the A. M. A. in June had a smaller attendance than for a number of years, less than ten per cent of the members attending.

LINCOLN PARISH MEDICAL ASSOCIATION.—At the monthly meeting of the Lincoln Parish Medical Association, held on July 7, the program arranged under the direction of the American Medical Association was carried out. There were some very interesting discussions and a case of pellagra was exhibited, which excited great interest. A set of direct transfusion apparatus was displayed, and some of the dangers of this operation in certain cases explained by Dr. Thomas Ragan.

CONFERENCE FOR REVISING THE INTERNATIONAL CLASSIFICATION OF CAUSES OF DEATH.—In Paris, July 1, there was held a conference for revising the International Classification of Causes of Death. Representatives from this country were present.

AN AMENDMENT TO THE INTERSTATE QUARANTINE REGULATIONS.—An amendment to the Interstate Quarantine Regulations has been made by the addition of the following paragraph to Article 3, general regulations: "Paragraph 8: Lepers may be accepted for transportation under proper supervision when en route to a seaport for deportation; also for transportation to a designated place for care and treatment, with the necessary consent of the proper health authorities, provided proper sanitary precautions are enforced with regard to the leper en route to destination.

TEXAS MEDICAL JOURNAL.—*The Texas Medical Journal* began its twenty-fifth year in July. This Journal has always been under the direct management of its owner, Dr. F. E. Daniel. Its many friends call it the "Red Back" and appreciate what it stands for.

VICTORY FOR THE NEW YORK POST GRADUATE MEDICAL SCHOOL AND HOSPITAL.—Through settlement of the contest over the will of the late Frederick Hewitt, of Oswego, New York, the New York Post Graduate Medical School and Hospital will receive the major portion of its \$2,000,000 bequest, and large improvements and building plans are being considered.

THE ASSOCIATION OF MILITARY SURGEONS WILL MEET IN WASHINGTON, D. C., OCTOBER 5, 6, 7, and 8, and several topics of general interest in the Army and Navy service will be discussed.

GOVERNMENT APPOINTMENTS.—The United States Civil Service announces an examination on August 4, to take place in Washington, and at the Pension Examining Surgeons' offices throughout the United States, for a male dental interne at \$600 per annum, with maintenance, for the Government Hospital for the Insane at Washington, D. C., and for vacancies requiring similar qualifications as such may occur. For further information address the U. S. Civil Service Commission, Washington, D. C.

THE CARROLL FUND.—Announcement is made that more than sufficient fund to remove the \$8,000 mortgage on the Carroll home has been raised, and that no further contributions are solicited. Thanks are extended by the committee in charge to all who have aided in accomplishing the result.

PROGRESS IN CUBA.—With the beginning of the present fiscal year the Republic of Cuba established a Bureau of Information,

President Gomez appointing Leon J. Canova, an American newspaper man, who has resided in Cuba eleven years, and has a wide acquaintance with the Island, as its director.

Parties wishing information of any nature concerning Cuba can obtain same, free of charge, by writing to Leon J. Canova, U. and I. Bureau (Utility and Information Bureau), Department of Agriculture, Commerce and Labor, Havan, Cuba.

SPELLING OF MEDICAL STUDENTS.—Dr. George Dock, speaking of the preliminary education of medical students, finds that a large proportion of them is not properly educated for the study of medicine. He thinks the causes of this condition are chiefly the following: (1) Imperfect training in the pre-collegiate or pre-university years; (2) imperfect scrutiny of candidates for admission to the medical school; (3) looseness with reference to scholarly fitness all through the medical course.

WOMEN NURSES IN THE NAVY.—The next draft of women nurses in the Naval Service will be sent to the hospital at Norfolk. Women nurses have now been furnished to the hospitals in New York, Annapolis, and Washington, and after the hospitals at Norfolk and Mare Island have been supplied there will still be a sufficient number available to furnish the hospitals at Yokohama and Canacao.

PERSONALS.—The medical department of the State University of Mississippi has been singularly fortunate in securing the services of the well-known bacteriologist, Dr. William Krauss, as dean and professor of pathology, and the *JOURNAL* offers congratulations on this acquisition.

Dr. E. A. Harper has returned from a medical meeting at Detroit.

Dr. Milo C. Brady has resigned as State Medical Inspector.

Dr. H. N. Street, formerly of Gloster, has moved to Little Rock, Ark., where he has accepted the position of associate professor of gynecology and pelvic surgery in the College of Physicians and Surgeons.

Dr. George H. Lee, of Galveston, has been elected by the Board of Regents of the University of Texas to the chair of gynecology and obstetrics in the Medical Department of the University, in the place of Professor J. F. Payne, who has resigned, and will become emeritus professor of those branches.

Major W. P. Chamberlain, for a long time located at the Jackson Barracks as medical officer of the United States Reservation, has been ordered to the Philippines.

Dr. Felix A. Larue, the well-known Secretary of the State Board of Medical Examiners, has recently had conferred upon him by the Minister of Fine Arts, of France, the *Palmes Académiques*, which gives him the honored title of "Officer d'Académie." This distinction has been earned by Dr. Larue through his valuable work in line with medical education.

REMOVALS.—Dr. James A. Neil, from Caster, La., to Alberta.

Dr. S. D. Wall, from Slaughter, La., to Kyle, Texas.

Dr. L. A. Shalan, from Opelousas, La., to Brusly.

DIED.—On July 13, at Palm Beach, Fla., R. B. Potter, M. D.

On Wednesday, June 30, 1909, Frederick Richard Loeber, M. D., of New Orleans.

On July 3, 1909, at St. Louis, Dr. J. R. Marmaduke Dillon, of this city.

On June 26, 1909, at Covington, La., Dr. Quitman Kohnke, at the age of fifty-two years.

The Annals of Surgery present an extraordinary volume in their July issue, making nearly 350 pages, including a great number of illustrations, etc.

The JOURNAL acknowledges an invitation to attend the State Fair of Louisiana to be held at Shreveport, November 1 to 6.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Surgery of the Upper Abdomen. In two Volumes, Vol. I, *Surgery of the Stomach and Duodenum.* By JOHN B. DEEVER, M. D., and ASTLEY P. C. ASHHURST, M. D. P. Blakiston's Son & Co., Philadelphia, 1909.

The profession will undoubtedly accord a kind reception to this attempt of Drs. Deaver and Ashhurst to classify and condense the enormous amount of literature dealing with surgery of the upper abdomen. No department of surgery has attracted so much attention, in recent years. The work has been no light task and the authors, believing correctly that

conclusions based on personal results are liable to bias, have endeavored to present the various results obtained throughout the surgical world, particularly upon many unsettled points still under discussion.

The work is to appear in two volumes, the first devoted to surgery of the stomach and abdomen, the second (not yet published) to surgery of the liver, gall bladder, pancreas and spleen.

The scope of the text can be best appreciated by an enumeration of the chapters; the following subjects are covered in Volume 1: Anatomy, Physiology of Digestion, General Diagnostic Considerations, Benign Diseases of the Stomach and Duodenum, Gastric Ulcer, Pyloric Obstruction, Infantile Stenosis of the Pylorus, Acute Dilatation of the Stomach, Atonic Dilatation, Secondary Gastric Dilatation, Gastropnoia, Cardiospasm, Hourglass Stomach, Gastric Diverticula, Benign Diseases of the Duodenum, Duodenal Ulcer, Strictures of the Duodenum, Chronic Dilatation, Hour Glass Duodenum, Diverticula of the Duodenum, Myoma, Fibro-Myoma Adeno and Papilloma, Cysts, Osteoma, Concretions, Angelioma, Lymphadenoma, Plastic Linitis, Miscellaneous Affections of the Stomach and Duodenum, Malignant Diseases of the Stomach and Duodenum, Injuries of the Diaphragm, Stomach and Duodenum, Technique of Operations, Complications and Sequelæ. It is not, as its name would imply, a book for the surgeon alone. It is equally as valuable to the general practitioner, for no field presents more striking proof of the necessity of co-operation between physician, surgeon and pathologist than surgery of the digestive tract.

The chapters devoted to diagnosis are particularly worthy of comment. Throughout the book the importance of early diagnosis is kept constantly in the foreground. "It seems to us that every case diagnosed *certainly* as carcinoma of the stomach before operation is a disgrace to the attending physician, provided he has had the patient under treatment for more than a few weeks." This sentence appears in the course of a plea for the early application of laboratory tests and the careful importance of history taking, when disease is suspected.

The illustrations are the work of Charles F. Bauer and are excellent from the point of detail and accuracy.

The chapters on Anatomy and Physiology were contributed by P. J. Skillerna and are worthy of special commendation. MILLER.

A Text-Book of Gynecological Diagnosis. By GEORGE WINTER, M. D., CARL RUGE, M. D. Edited by JOHN G. CLARK, M. D., after third revised edition. J. B. Lippincott Co., Philadelphia and London, 1909.

Of the various books which have appeared in rapid succession on gynecological diagnosis none surpass this excellent work of Prof. Winter, now presented for the first time in an English edition. Owing to the author's high standing as a teacher and clinician, his book has been a standard in Germany for several years. It will have additional value to the English speaking profession, in consequence of the valuable notes made by Dr. John G. Clark, who stands sponsor for the translation.

In the preface Dr. Clark calls attention to our debt to English and Continental gynecologists for the discovery of many essentials, in theory and practice, and especially to the German specialists for their epoch making discoveries in embryology, histology, and most important of all, their investigations of questions relating to the pathology and bacteriology of diseases of women.

Prof. Winter has given the finer details, without being tedious, without being ultra scientific and, therefore, has produced a book of extreme value to both the student and practitioner.

There are numerous features worthy of special comment, the most noteworthy being the sections devoted to "Analytical Diagnosis." These sec-

tions follow those devoted to special diagnosis and the author believed such an arrangement necessary for the practitioner who can never follow the systematic details displayed in text-books.

Any one who carefully reads the sections on The Causes of Hemorrhage, The Causes of Amenorrhea, The Causes of Dysmenorrhea, The Causes of Sterility, The Analytical Diagnosis of Abdominal Tumors, can fully appreciate what Prof. Winter means by analytical diagnosis and will no doubt endeavor to adopt his methods.

In addition to the practical part of the book which has been so carefully prepared by Prof. Winter, Prof. Carl Ruge, the distinguished investigator and teacher of microscopic diagnosis, has contributed a very valuable section on this subject and its important bearings upon etiology, diagnosis and treatment of the diseases of women.

The editor very correctly acknowledges the splendid work of Dr. R. Max Goepf, who made the translation.

The book is profusely illustrated and from the publishers' standpoint is quite in keeping with modern ideas of book making. MILLER.

Practical Physiological Chemistry. By PHILIP B. HAWK, M. S., Ph. D. Second Edition, Revised and Enlarged. P. Blakiston's Son & Co., Philadelphia, 1909.

In our review of the first edition of this work, the good points were mentioned. This, the second edition is, in some respects, an improvement. It has been rewritten in part, and thoroughly revised. The spelling officially adopted by the American Clinical Society has been followed.

There are twenty-three chapters, embracing an excellent outline of physiological chemistry. The student in this branch of study will not go amiss when he selects this book as his guide. STORCK.

The Urine, The Gastric Contents, The Common Poisons and The Milk. By J. W. HOLLAND, M. D. Eighth Edition. P. Blakiston's Son & Co., Philadelphia.

The fact that the eighth edition of this handy volume has been reached attests the need for it. It is a convenient book in the office of the general practitioner. The descriptions of the various manipulations are concise, but ample.

We should have desired that the author had inserted the Benzidin test for the detection of occult blood. This would have made more complete the chapter on the examination of the gastric contents. STORCK.

The Practical Medicine Series (Vol. I), General Medicine. Edited by FRANK BILLINGS, M. S., M. D., and J. H. SALISBURY, A. M., M. D. Series 1909. The Year Book Publishers, Chicago.

With each successive year, the popularity of this series increases.

The abstract from R. W. Phillips' article on percussion in the *Edinburgh Medical Journal* is well presented, and contains important information.

One hundred and sixteen pages are devoted to the subject of tuberculosis. We quote the following:

"B. S. Paschall (Abs. Tuberculosis Congress, 1908) examined the teeth in 200 cases of tuberculosis and his conclusions are: (a) Bad teeth, good prognosis (seldom predominating pulmonary infection). (b) Bad teeth indicate early infection (scrofulosis fibroid phthisis). (c) Early infection (immunization). (d) Good teeth, bad prognosis (frequently typical pulmonary, characteristic, rapid). (e) Good teeth may indicate inherited immunity, so that it could not be said that good teeth mean

greater danger to individual who is at present healthy. (f) Bad teeth do not always mean recovery, since grave unhygienic conditions may overcome the immunity. (g) Undetermined cases in which a scattered tooth here and there is soft."

In the *Munich Med. Woch.*, Dec. 24, 1907, C. Mainini reports statistics of 208 cases testing the cutaneous and ocular reaction to tuberculin, giving ocular reaction 100 cases. He concludes as follows:

"1. The cutaneous as well as the ocular reaction gives a positive local reaction with great uniformity in patients with positive tuberculosis with the exception of advanced cases.

"2. There are many reasons for believing that this reaction is specific, but it has not yet been proven.

"3. In individuals not suspected of tuberculosis the cutaneous reaction is about six times as valuable as the ocular reaction.

"4. Assuming that the reaction is specific, this lack of agreement may be explained on the supposition that the ocular reaction points convincingly to an active tuberculosis, while v. Pirquet's reaction also shows the presence of latent foci."

From an exhaustive research on the use of tuberculin, A. Latham and A. C. Inman, *Medical Record*, March 28, 1908, conclude as follows:

"1. Tuberculin may be given with effect by the mouth or rectum or subcutaneously. The dosage is dissimilar, but animal experiments, opsonic curves, and temperature charts show that the effects produced are the same. 2. The administration of tuberculin meets with little if any, success so long as successive autoinoculations spontaneously occur and cannot be limited by the means at our command. Absolute rest is the most efficient means for limiting autoinoculation. 3. The administration of tuberculin may be adequately controlled in a large percentage of pulmonary tuberculosis by a careful daily observation of the temperature and clinical condition of the patient on the lines indicated above. 4. In cases of difficulty valuable information may be obtained from an examination of the opsonic index. 5. The Gumon method of the routine administration of tuberculin by gradually increasing doses at stated intervals is not to be recommended. It is only satisfactory in a very limited class of cases, and even then may not lead to the best results. 6. Tuberculin is a dangerous drug and the administration requires considerable experience. It is capable when given improperly, of producing disastrous and even fatal results."

"1. The ideal method of treatment is at present a combination of the climatic with tuberculin.

"2. Tuberculin properly used is a harmless remedy.

"3. Tuberculin can be used in all, even in the most advanced cases of tuberculosis. In these recovery cannot be hoped for, but many disagreeable symptoms can be eliminated. Recovery is to be expected in cases of the first stage, (Trudeau's classification) also in cases of the second, and sometimes even in the third stage."

Owing to lack of space in a review of this nature, we can barely touch on the contents of a book in which there are numerous valuable excerpts on numerous subjects. Practitioners who have not access to a large number of medical journals, especially those printed abroad, will find this series valuable.

STORCK.

Diseases of the Digestive Canal (Esophagus, Stomach, Intestines). By DR. PAUL COHNHEIM. From the Second German Edition. Edited and translated by DUDLEY FULTON, M. D. J. B. Lippincott Co., Philadelphia.

It is a pleasure to review a book from the pen of so eminent a clinician as Dr. Cohnheim. The work is not a compilation of other works, but

represents for the most part the personal experience in the practice and teachings of the illustrious author.

The work is written purely from a clinical standpoint causing it to stand apart from other works on this branch of medicine.

The anmnesis is considered the most important part of the examination in the diagnosis of the gastro-intestinal canal. A lucid interpretation of subjective symptoms is given whenever it is possible to do so. The physical examination of the patient is carefully explained, considerable stress being laid on the "habitus." The position of the patient during examination is also carefully explained.

While laboratory methods are not neglected in arriving at a diagnosis, complicated details have been avoided for the most part.

As to the treatment of the different conditions, they are rational and in accordance with scientific medicine. By his translation, Dr. Fulton has laid the profession in the United States under obligation. For the best part, the work is well done, the few errors being apparent. For instance, on page 92, we read 'In acid gastritis, free hydrochloric acid is entirely absent.' This should read, "In anacid gastritis, free hydrochloric is entirely absent."

STORCK.

Publications Received.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1909.

International Clinics, by Leading Members of the Medical Profession Throughout the World. (Vol II, Nineteenth Series).

MOFFAT YARD & COMPANY, New York, 1909.

Tuberculosis—A Preventable and Curable Disease, by Adolphus Knopf, M. D.

W. B. SAUSDERS & COMPANY, Philadelphia and London, 1909.

Principles of Pharmacy, by Henry W. Army, Ph. G., Ph. D.

F. A. DAVIS COMPANY, Philadelphia, 1908.

Hand-Book of Obstetrics, by R. Caldwell, A. M., M. D.

Essentials of Laboratory Diagnosis, by Francis Ashley Faught, M. D.

Confessions of a Neurasthenic, by William Taylor Marrs, M. D.

A Text-Book on Practical Obstetrics, by Egbert H. Gandin, A. B., M. D., with Collaborations, by George W. Jarman, M. D., and Simon Marx, M. D. (Fourth Edition Revised and Enlarged).

A Text-Book of Hygiene, by George H. Rohe, M. D., and Albert Robin, M. D.

Diseases of the Nose, Throat and Ear, and Their Accessory Cavities, by Seth Scott Bishop, M. D., D. C. L., LL. D. (Fourth Revised Edition).

A Text-Book of Practical Gynecology—For Practitioners and Students, by D. Tod Gilliam, M. D. (Third Revised Edition).

D. C. HEATH & COMPANY, Boston, 1909.

Diseases of the Bones and Joints, by Joel E. Goldthwaite, M. D., Chas. F. Painter, M. D., Robert B. Osgood, M. D.

WILLIAM GREEN & SONS, Edinburgh and London, 1909.

A Hand-Book of the Diseases of the Nose and Throat, by Eugene S. Yonge, M. D.

WORLD BOOK COMPANY, Yonkers-on-Hudson, New York, 1909.

Human Physiology, by John W. Ritchie, M. D.

MISCELLANEOUS.

Eighth Annual Report of the Cancer Laboratory of the New York State Department of Health.

Report of the Director of Health and Charities for the Fiscal Year, 1907-1908, San Juan, Porto Rico. (Washington, Government Printing Office.)

Physician and Nurse—An Idealization, by Joseph McFarland, M. D.

History of Yellow Fever, by George Augustin.

Reprints.

The Pupil in Extra-Ocular Diseases, by Herbert C. De V. Cornwell, M. D.

Some Remarks on Hyperchlorhydia; Some Remarks on Mucous Colitis, by George M. Niles, M. D.

A Little Abdominal Surgery by the Family Physician, by W. H. Duke-man, M. D.

The Prevalence and Importance of Uncinariasis Among Apparently Healthy Southern Bred White Men in the United States Army, by Weston P. Chamberlain, M. D.

Analytical Description of the Eye as an End Organ, by Jos. E. Willets, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR JUNE, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	4	9
Intermittent Fever (Malarial Cachexia)	1	1	2
Smallpox.....			
Measles.....			
Scarlet Fever.....	4		4
Whooping Cough.....	1	1	2
Diphtheria and Croup.....	2		2
Influenza.....	1		1
Cholera Nostras.....		1	1
Pyemia and Septicemia.....	2	1	3
Tuberculosis.....	23	38	66
Cancer.....	23	7	30
Rheumatism and Gout.....			
Diabetes.....	1		1
Alcoholism.....	2		2
Encephalitis and Meningitis.....	7	3	10
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	20	4	24
Paralysis.....	2	1	3
Convulsions of Infants.....	2	2	4
Other Diseases of Infancy.....	16	12	28
Tetanus.....	3	3	6
Other Nervous Diseases.....	1		1
Heart Diseases.....	45	27	72
Bronchitis.....	2	4	6
Pneumonia and Broncho-Pneumonia.....	13	12	25
Other Respiratory Diseases.....	1	1	2
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach.....	4	3	7
Diarrhea, Dysentery and Enteritis.....	42	23	65
Hernia, Intestinal Obstruction.....	3	1	4
Cirrhosis of Liver.....	2	2	4
Other Diseases of the Liver.....	4	2	6
Simple Peritonitis.....	2		2
Appendicitis.....	1		1
Bright's Disease.....	26	18	44
Other Genito-Urinary Diseases.....	2	5	7
Puerperal Diseases.....	4	5	9
Senile Debility.....	10	5	15
Suicide.....	3		3
Injuries.....	19	12	31
All Other Causes.....	22	11	33
TOTAL.....	327	209	536

Still-born Children—White, 20; colored, 27; total, 47.

Population of City (estimated)—White, 265,000; colored, 97,000: total, 362,000.

Death Rate per 1000 per annum for Month—White, 14.81; colored, 26.88; total, 17.76.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure.....29.96
Mean temperature.....81.
Total precipitation.....8.82 inches.
Prevailing direction of wind, southeast.

New Orleans Medical and Surgical Journal.

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SEPTEMBER, 1909.

No. 3

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Chronic Interstitial Nephritis.*

By F. M. THORNHILL, M. D., Arcadia, La.

There is perhaps no problem belonging to nosology which has vexed the clinician and the pathologist more than the classification of the diseases of the kidneys when called upon to differentiate between them by clinical methods alone. No aggregation of clinical symptoms during life has been found to conform with constant regularity to the pathological lesions discovered to exist in the different types of renal disease after death. I shall not detain the Society with a discussion of the etiology and pathology of nephritis further than to lay something of a foundation for what I desire to say under the head of a diagnosis and treatment. Pathologists usually divide interstitial nephritis into acute and chronic. The acute form may be disposed of in a very few words, as it is admittedly of very infrequent occurrence, and indeed some

*Read before the Bienville Parish Medical Society, and published by request of the Society.

good pathologists deny its existence as a separate and distinct pathologic entity, and if I have ever seen a case, my powers of diagnosis were too feeble to enable me to discover it. This form of the disease should not be confounded with the acute exacerbations of chronic interstitial nephritis. The difference in the morbid anatomy of the two forms of the disease, there is good reason to believe, is more one of degree than kind. There is no clinical picture, by which acute interstitial nephritis can be differentiated from other forms of renal inflammation before coming to autopsy, and the dead house alone can reveal the true nature of the disease. With this brief reference to acute interstitial nephritis I shall devote the remainder of my paper to the chronic form of the disease commonly known as Bright's disease, it being the most frequent type of renal inflammation with which we have to deal and contributing largely to the mortality rate of our own, and that of all civilized countries. A few words with reference to the term chronic may not be out of place in this connection. I have just said that acute interstitial nephritis is of comparatively rare occurrence and that the chronic form of the disease is the most common renal lesion with which we meet—this statement if left unexplained might lead some of you to wrong conclusions. The usually accepted definition of the term chronic as applied to diseases I believe has led to a considerable amount of confusion and misapprehension in the minds of physicians. Many of us are prone to look upon every chronic disease as of necessity being acute in the beginning, and that it cannot be chronic until it has existed for a greater or less length of time. Or in plainer words that every chronic disease is the final result of a previous acute condition. But as a matter of fact many chronic diseases are so from the beginning, and especially does this appear to be true of chronic interstitial nephritis in a very large majority of cases. Coplin in his *Manual of Pathology* says in a large majority of cases, if not in all, the disease is primary and is not preceded by any other lesions of the kidneys. The etiology of chronic interstitial nephritis so far as known seems to depend upon no single or specific agent, but the cause is variable and often obscure and undiscoverable. There are, however, it is believed, a number of well determined causes, a few of which I shall refer to. Gout has long been considered to

occupy an intimate causal relationship to the disease, and Tyson says: "There is probably no case of gout which has continued for any length of time, which is not accompanied by the condition of the kidneys usually found in interstitial nephritis." Intemperance in eating, especially in those who consume large amounts of meats and other foods, rich in proteids, my own observation leads me to believe is frequent cause of the disease. Heredity is probably the most potent factor in the etiology of Bright's disease. A large number of the cases coming within my own experience have given a history of the disease in a marked degree among their immediate ancestors and near relatives. I have under observation at this time two patients both of whose fathers and a parental uncle of one, all died of nephritis. Tyson in his book on "Bright's Disease and Diabetes" relates a most notable instance in support of this assumption. In the instance referred to there were 13 deaths from Bright's disease in less than a generation among the descendants and near relatives of a father and mother, who died of the disease, besides other members of the family who died of it in previous generations. Alcohol has for a long time been regarded as one of the most common causes of renal cirrhosis, but less so probably at the present time than formerly. But still the disease is found to occur in those who indulge in alcoholics to excess sufficiently often to establish a causal relation beyond a reasonable doubt. Intemperance in eating and drinking or dissipation in any form whatever, as overwork, long continued mental strain and worry, and exposure to cold and damp are all no doubt sometimes the direct cause of the disease. An accurate knowledge of the morbid anatomy of interstitial nephritis is as important as that of its etiology, for without a correct knowledge of its pathology we are unprepared to properly apply treatment or to know what to expect of it. As a matter of fact a treatment which does not take into consideration the morbid anatomy and the pathological physiology of disease as well, is lacking in a rational and scientific basis. I would, therefore, urge upon members of this Society, especially the younger members, the importance of acquiring a thorough knowledge of pathology—avail yourselves of every opportunity that may offer to increase your knowledge in this branch of medicine. One of the most striking features in the pathology

of chronic interstitial nephritis is the reduction in the size of the kidney, in some instances amounting to more than one-half the normal size. The next thing to attract the attention is the characteristic rough nodular surface accompanied with cysts scattered here and there over the cortex visible through the capsule and frequently containing more or less fluid. The capsule itself involved in the morbid process is thickened, adheres closely to the cortex and is removed with difficulty. Pathologists have shown these changes to be due to an over-growth of connective tissue, with destruction of the uriniferous tubules and blood vessels. This overgrowth of connective tissue steadily increases until the tubules become constricted, distorted and finally obliterated, and their physiological action practically destroyed. The morbid process found to involve the blood vessels of the kidney gradually extends itself to the entire vascular system, a fact which will become more apparent when we come to speak of the diagnostic signs. The diagnosis of chronic interstitial nephritis is not considered difficult when once our attention is directed to the kidneys, and we are led to examine the urine, but notwithstanding this fact my own experience leads me to believe that there is no disease which so frequently escapes our attention until it has advanced beyond the point of therapeutic aid. This oversight is probably due to the fact that we are accustomed to look for and depend upon certain prominent urinary symptoms which never appear. In the vast majority of cases the approach of the disease is slow and insidious and often times the diagnosis is made by accident which startles alike the patient and the physician. The discovery of the presence of albumin in the urine is usually the first thing to arouse the physician's mind to a realization of the fact that he is dealing with nephritis, and this fact unfortunately often is not detected until a more conspicuous train of symptoms and serious complications begin to arise. Albuminuria has so long been regarded as the infallible sign of Bright's disease that there is little wonder we should overlook more important symptoms in our efforts to find albumin, especially when it happens to be absent as it sometimes is. Failure to find albumin in some cases of nephritis may be due to different causes among which is a faulty technic of the method employed, coupled with the fact that the amount of albumin is

frequently small and inconsistent; i. e., absent at times and present at others. In the majority of cases if the urine be examined carefully, daily for a number of days, albumin will be found to exist in a great many cases in which it would otherwise be overlooked. There are cases, however, it must be admitted, in which albumin is constantly and persistently absent wherein we are dependant upon certain other correlative symptoms for a diagnosis. In these cases the microscope is our best and only true friend. A striking illustration of this fact came under my observation a year or two ago, a case with which other members of this Society as well as myself are painfully familiar. The patient referred to was an honored and respected member of this Society who had been in failing health for some time and had at different times prior to his last illness, related to me symptoms which caused me to suspect Bright's disease. His physicians, however, had examined the urine with special reference to albumin with negative results. Later I was invited to see the patient at which time I obtained a specimen of the urine and with one of the physicians examined it for albumin with the same negative result. At the same time I made a microscopic examination and found tube casts. A day or two later I obtained a second specimen of urine and examined it with negative results as to albumin but with increased numbers of casts and other debris. Suppression of urine came on that day and the patient died with symptoms of convulsions during the night. I have taken the time and the trouble to relate this case in order to show that we cannot rely upon the absence of albumin as positive proof of the non-existence of nephritis in every instance, nor does its presence always mean the existence of the disease with absolute certainty. I could cite other cases to the same effect, but will not tax the time and the patience of the Society to do so. It is not necessary to our present purpose to discuss the circumstances and conditions under which albumin sometimes appears in the urine independent of nephritis. Text-book writers are in the habit of enumerating certain alterations in the physical character of the urine as constituting a part of the clinical history of chronic interstitial nephritis. One of these is a low specific gravity, another a lack of color and still another, that of turbidity or a slight sediment. This statement, if taken literally, I am sure,

is calculated to be misleading for, according to my experience there is nothing in the appearance of the urine, in a large number of cases, to even suggest a departure from the normal. The specific gravity is often normal or above, while the amount of urine excreted is practically unchanged and the most experienced eye I believe would be unable to detect any change in color. I had an excellent opportunity several years ago, of studying these features of the urine in a patient whom I saw daily for six or eight months prior to his death. In this case the clinical picture in all other respects was complete, the urine contained about 5% of albumin by volume and yet it maintained a specific gravity of 1020 during all this time the color was natural and I verily believe that the most skilled expert in urinary diagnosis would have been unable to detect any change in the normal appearance of the urine with the unaided eye. It is not my intention to underestimate the importance of examining the urine or to discourage the practice in all suspected renal diseases, but on the contrary, I would advise every physician to form the habit of examining the urine in all obscure or doubtful cases of whatever nature. It is a good habit to form and one that will save us from many a blunder. I come now to speak of the signs outside of and beyond the kidneys which I consider of as much value as those belonging to the urine. A slight edema of the lower extremities is suggestive of chronic nephritis and should lead us to examine the urine, but usually this symptom does not manifest itself until late in the disease and often is so slight as to be overlooked altogether. Structural changes in the cardiovascular system is the most constant effect of chronic interstitial nephritis and the symptoms arising from these changes is often the hint which eventually leads us to a diagnosis. These changes consist of enlargement of the heart, especially of the left ventricle, in accentuation of the aortic second sound, in raised blood pressure, and thickening of the walls of the arteries, accompanied with their train of symptoms, as headache, vertigo, mal-nutrition, debility, etc. Some good authorities claim that hypertrophy of the left ventricle is of such constant occurrence that it may more properly be considered as a symptom than a sequel which it really is. Hypertrophy of the left ventricle without valvular disease is most invariably due to some obstruction in the blood current beyond the

heart and seems to be a provision of nature to supply extra force by which the obstruction may be overcome. The obstruction, under these circumstances, is usually found to be due to the arterio-sclerosis and other structural changes in the vascular system incident to chronic interstitial nephritis. These changes naturally impair the elasticity of the arteries and the adaptability of the vascular system to the amount of blood flowing through it, and to maintain the normal equilibrium, the central propelling power is reinforced by hypertrophy of the left ventricle resulting in increased blood pressure accompanied with more or less cardiac irregularities and distress. Other conditions growing out of the mechanical obstruction are bronchitis, and edema of the lungs and the susceptibility of the mucous and serous membranes of catarrhal inflammation in Bright's disease should always be borne in mind. I have found catarrhal and bronchial symptoms frequent and prominent features of the disease and when patients come to me with a history of failing health accompanied with what they regard as recurring attacks of la grippe I am at once placed on my guard. The true cause of bronchitis and edema of the lungs due to the morbid changes produced in the circulatory system by Bright's disease I have no doubt is often overlooked and these symptoms treated as primary diseases. Asthma, headache, difficulty of breathing, restlessness, nausea and vomiting are all symptoms sometimes due to toxemia, and asthma and difficulty of breathing when occurring at night are especially significant and should lead to a thorough investigation including an examination of the urine. Ocular symptoms often manifest themselves during the course of nephritis and ophthalmologists may be the first to discover the existence of the disease. Patients with albuminuric retinitis and amblyopia are sometimes referred to the oculist on account of their eye symptoms to be referred in turn by him to the internal medicine man for an examination of the urine, when it is found they have Bright's disease. So important is the relation that eye symptoms bear to the different forms of nephritis that Tyson in his book on Bright's Disease and Diabetes previously referred to had the eminent ophthalmologist George E. de Schweinitz to contribute a separate chapter on the subject to that work. In concluding the discussion of the diagnostic signs I want to drop a

word of warning against the danger of relying upon any single symptom or any single group of symptoms either urinary or extra-urinary for diagnosis, because as we have seen the symptoms usually referable to the urine may be absent altogether while those due to the morbid changes in the circulatory system may be late appearing and difficult of detection. Every case therefore should be studied as a law unto itself, carefully considering each symptom in its clinical bearing endeavoring to correctly interpret it, adding here a little and there a little and thus even in anomalous cases we shall eventually be able to arrive at a correct diagnosis. The field of treatment has been so thoroughly covered by abler and better qualified writers that I hesitate to enter it, knowing as I do that I shall be unable to add anything to what has already been, so well worked out by the combined learning and wisdom of the profession. The nature of the morbid changes known to take place in the kidneys in chronic interstitial nephritis would seem to be incompatible with a restoration to health and so far as I know medical literature furnishes no well authenticated instance of such cure having been accomplished. Yet there are certain well recognized fundamental and rational principles of treatment which when properly applied are well calculated to contribute greatly to the comfort of the patient and the prolongation of his life, as well as to protect him against serious and painful complications. The treatment of Bright's disease may be, comprehensively, stated in the terms, restriction of diet, limitation of exercise, the observance of the laws of hygiene aided in properly selected cases by the use of a few drugs. It is not my purpose to go into detail in either of these divisions, but I desire simply to call attention to a few of what I consider the most important points in each. In my experience I have encountered no more difficult problem in dietetics than that of proper feeding in nephritis. This difficulty does not consist alone in the selection of the proper articles of food, but in the far greater one of being unable to get patients to continue their restricted and modified bill of fare long enough to receive any permanent benefit from it. It is obvious that a kidney suffering from the lesions of Bright's disease is a badly disabled organ and should be treated on the same principle as a broken arm or leg with respect to the amount of work it is required to do. This prin-

ciple can be met in a large degree by so adjusting the diet as to impose upon the diseased organ the least possible amount of labor. The renal functions in chronic interstitial nephritis is known to be particularly impaired as respects its ability to eliminate urea and therefore foods containing the source of large amounts of that material in the system should be avoided. By the observance of this principle two important indications are met, the saving of labor to the kidneys and the prevention of the accumulation of toxic material in the blood. The class of foods richest in the materials now known to end in the formation of urea in the system are meats of most every variety, eggs and other nitrogenous foods, which in the case of nephritis should be displaced as far as possible by milk and cream supplemented by certain cereals, fruits and vegetables. The latter day doctrine of some who advocate a more promiscuous and liberal feeding in Bright's disease I believe is wrong in theory and one fraught with great danger when reduced to practice. By this I do not mean to convey the idea that every case should or can be fed exactly alike, but in the great majority of cases the patient who keeps within the safe limits of moderation is the one who will enjoy the greatest degree of comfort and the longest tenure of life. Limitation of exercise, both physical and mental is a helpful adjunct in all cases and in severe cases absolute rest in bed and cessation for awhile from all labor is indispensable. Active exercise means an increased amount of labor for the kidneys through a corresponding increase in the wear and tear of the body. It often occurs that after albumin has been reduced to a low degree by a restriction of diet in patients who remain up and take more or less exercise that a still further reduction rapidly follows when sent to bed, and again it as rapidly increases when these restrictions are removed. This fact I have seen demonstrated a number of times in my own experience, I believe, however, that greater latitude in the matter of exercise may be allowed than in eating, and in some mild and moderate cases the benefit of rest may be more than counter-balanced by the bad effect of confinement and the lack of fresh air and outdoor life. Under the head of hygiene should be considered measures looking to the maintenance of the functions of the skin. Of these the item of clothing is an important one. In winter that worn next to the

body should be of wool in order to protect it against the cold and damp and the sudden changes of temperature incident to this season of the year. In health, the action of the skin relieves the kidneys of a large amount of work, and in disease of those organs it is important that that function should be maintained at the highest possible degree of efficiency. In nephritis anything that interferes materially with the action of the skin may throw such an amount of extra labor on the kidneys as to produce serious and fatal results in a short time. Therefore the skin should be kept warm and clean and exposure to damp and cold avoided, as well as the keeping of late hours and indulgence in other forms of dissipation. In taking up the subject of drugs in Bright's disease I want to say that without the aid of diet, rest and hygiene, which we have just been discussing, we may as well throw our physic to the dogs. The scope of the utility of drugs in this disease is limited and many cases are better off without them, particularly if the principles of treatment previously mentioned be faithfully and intelligently followed. In most cases our needed therapeutic agents can be selected from two classes of drugs, namely diuretics and tonics. Diuretics should be prescribed with great care and precision, for as a rule they are not indicated in all stages of the disease, and in some cases not at all. As long as the amount of urea excreted is maintained at or near the normal point this class of remedies should not be employed. Water is a natural, safe and efficient diuretic and one which the patient should be encouraged to take when the excretory power of the kidneys begins to fail. This natural diuretic subserves at least three important purposes in the process of metabolism, it supplies the tissues of the body with the necessary fluid, it stimulates the output of urea and possesses considerable nutritive value. Tanner's feat probably was largely due to the latter fact and after all was not so remarkable. Digitalis easily stands at the head of the list of diuretics obtained from the materia medica in Bright's disease. It is the most reliable for increasing the flow of urine as well as to meet the symptoms growing out of the cardiac and circulatory complications which develop at about the same time as the renal failure in the latter stage of the disease. Occasional small doses of calomel have given me excellent results as a diuretic and as a promoter of general

systemic elimination. I sometimes suspend all other remedies and give from one-half to one grain of calomel night and morning for several days, and if necessary, give some simple saline daily to aid its action. This process is repeated from time to time as deemed advisable during the course of the disease and almost invariably with marked benefit, as shown by an increased flow of urine, diminution in the amount of albumin and improvement in the general condition of the patient. Of tonics it may be said we have iron, strychnin, quinin, and the simple bitters to select from. This is a class of remedies which in my opinion should be prescribed with as much discretion as diuretics. Anemia is the only condition in which iron is indicated and it as well as all other drugs should only be prescribed to meet special indications. Most all the preparations of iron are more or less difficult of assimilation, tend to produce constipation and to interfere with digestion, which is already weak, and in many cases becomes a prominent and troublesome feature. The sense of weakness and weariness experienced by some patients is not always a symptom of anemia, but is due to impaired elimination, and the accumulation of effete material in the system, particularly the muscles, and obviously iron instead of relieving this condition would aggravate it. The preparation easiest of assimilation with the least tendency to constipate and obstruct the avenues of elimination should therefore be selected. Personally I prefer either the common tincture or the iodid, the former when administered in connection with the spirit of nitre makes an efficient diuretic which is all the more apt to be indicated when anemia is present. Basham's mixture is, perhaps, the most universally prescribed preparation of iron in Bright's disease at the present day and no doubt much harm has resulted from its indiscriminate use. Some doctors seem to expect their patients to take it as freely and apparently with as much relish as those who are in the habit of drinking Dr. Pepper and Coa-cola at the modern soda fount. Strychnin, quinin, the simple bitter tonics and other aids to digestion may be prescribed with benefit when specifically indicated. I have not gone into the details of treatment, considering it more profitable to discuss principles than remedies.

“Cretinism.”

By J. D. BLOOM, M. D., New Orleans.

Truly can it be said how wonderfully and fearfully are we made when we reason that the mere impediment in action or congenital absence of a physiologically undetermined and practically unknown part results in dwarfing a promising stalwart man into a condition of practical “innocuous desuetude.”

The food for thought that it contributes toward is patent and beset for a mere physiological reasoning, lending strength to the adage mentioned.

Age marks the divisions that morphologically we speak of as cretinism, infantilism and myxedema.

The second year is it more frequently in evidence, after weaning, the infection seems post-natal; myxedema is said to rarely occur from endemic goitre. A congenital absence or atrophy of the gland cannot be said to be due to an anterior or post natal infection—the “contagion vivum” of the endemic character, of course, it must be due, presumably, to the same factor whatever it may be and as yet not definitely settled. The character of its “Internal Secretion” is unknown. Many diseases known to produce a hypothyroidia in the mother.

For many years the first born in Scotland was known as a “daft callant,” supposed by the people to be due to the use of intoxicants at the wedding festivities of the parents and a probable impregnation after their use since they were prolonged for a number of days following the ceremony; the bride and groom being expected to drink freely and often of the strong spirits these people indulged in. Parental consanguinity, impressions had by the mother and labor that is much prolonged, too, have been named as causes. Diseases of an infectious nature have also been spoken of; the placenta infiltration, so to speak, of these several poisons is difficult to perceive. Halstead’s experiments on the dog are quite singular. He and others found that if in the female dog who, with part of her thyroid gland removed, became impregnated by a dog unoperated upon, the puppies resulting were with these glands about twelve times larger than normal. This has been repeated in experiments with the same result, speaking as it does for



ILLUSTRATING CASE OF CRETINISM.
(DR. BLOOM'S ARTICLE.)

the reciprocal efforts of nature in the progeny. It is possible that a reverse condition would obtain in conditions otherwise, and that cretinic symptoms would follow weaning in consequence of the maternal thyroid secretions being no longer supplied, provided that the gland did not develop in the offspring. In truth, with or without goitre the essential condition is thyroidization, individual or compensatory. We are all familiar with the increase in size of the thyroid gland in pregnancy and menstruation, for this hyper-excitement of this secretion must exist in possibility. Infantilism, in cause, is the same as cretinism except the provoking influence is not definitely known.

A cretin has no puberty, seemingly the growth energy is expended in childhood. Myxedema of the adult is similarly of a like pathology; the variations in the female physiology and the associate influence of pregnancy and menstruation upon the function of the thyroid gland has them more liable to this disease. In the varieties peculiar to early life the sexes about even each other.

The Commission of the British Government in 1884, on the subject of myxedema, report but one anatomical lesion, namely, abolition of function or atrophy of the thyroid gland. Whatever the mental deficiency of early life may be due to, the fact exists of a similar hebetude in this disease of later life. It has been claimed that the thyroid gland itself has to do with the physical and the parathyroids with the mental development. The embryonic type of the skin tissue in myxedema is peculiar, in that it seems regressive; the skeleton is arrested in development, save the head which develops normally in size. The vascular system and left heart seem taxed by the condition. Purely congenital cretins are said to be monstrosities, dwarfed in size and with intellects practically vegetative; in the other forms the process is slow and in a way gradual, second dentition failing to occur in some instances. It is said fatty tumors are common in older children and symmetrical in formation.

A posterior curvature in the cervical region whether a result of muscular weakness or compensating for the anterior lumbar curve that has the abdomen protuberant is hard to say. An apparent umbilical hernia frequently exists; non descent of the testicles in the male and stayed development of the genitalia contrast with the

size of the head of the clitoris which is usually large; sexual desire scarcely exists. The skin tissues, in appearance, suggest edema and it is practically devoid of function or growth; improvement in this condition is not known.

From what has been said, the stature is very short, sometimes shows a growth on thyroid treatment. Cachexia striumiprivie, tetanus, eclampsia of pregnancy, which in many instances seems as a "Tetanoid Epilepsy" speak in many instances for a thyroid insufficiency or hypothyroidia, as we know clinically that it can be produced by thyroidectomy both partial and complete, influenced as it is by the seeming function of both the thyroid and parathyroid glands.

In several operative cases of partial thyroidectomy, I have had tetanus occur, as in instances of apparent infection, the disease occurring on the ninth or tenth day. In each case the wound was found sweet and clean, death following in the wake of the condition.

A type of degeneracy, both mental and physical, congenital or that which develops in childhood is due to a disturbance or absence of the thyroid gland function. This individual is called a Cretin, that suffers the condition with an associate physical and mental impairment; that in itself is truly a physiologic condition due to a lack of gland function.

The word cretin, in origin, was used to designate the mushy character of the land on which these people, at one time, were found to dwell. This in a measure has been doubted, the contented nature of these individuals has had it thought, too, that through a colloquial vulgarity on the word Christian, they were so named and that they were expiating, in their supposed unhappy condition, the wrong doing of others; so has been the process of reasoning. They are found to-day in practically every locality and prevail endemically where goitre commonly exists; in some locations where it did exist, it has died out. In certain localities it was not only common in man, but the lower animals suffered likewise; altitude seems favorable to its existence.

The relationship, cretinism and myxedema, can scare be disputed from a standpoint of cause, the difference is to time of life; the thyroid treatment is equally beneficial in both instances,

therefore, the cause must be common to both or independent. It has been agreed, too, that drinking water, since the change of water retards or stops in a measure the growth, is of tangible cause for it is said that contiguous communities enjoy an exemption notwithstanding living under the same conditions save water supply. The source and character of the water has naturally been questioned, it is known that soil water alone influences this condition and that neither snow water or that secured from rain produce it. This one fact is the one alone tenable so far, chemical composition has varied in almost all instances and this truth has led to the belief of a contagion, which is the idea being adopted.

The goitre-genic substance is practically something to be learned, the mere fact of boiling the water used in these districts where it prevails endemically, making the fluid innocuous, is significant.

True, it is, that the condition increases as long as the water causing it is continued, however, as yet, its mysterious nature must be admitted; immunity, of course, exists.

Primarily, the influence is upon the gland and its function, the other conditions are secondary; consanguinity has been charged with it, though heredity from goitrous parentage has more force.

The physiognomy and other general characteristics are so prominent that the picture herewith given cannot fail to impress one of its peculiarity. Verily, individuality seems lacking and a degeneracy of high type represented in their every function; the term "plant men" truly tells their existence.

The disease may be congenital and its pathology has been referred to many conditions not attributable to causes occurring in infancy. After birth and particularly after weaning is it first noticed as above referred. It is said the height of the condition is reached at fifteen years, after which it remains stationary, whilst this in ordinary is the course, cretinism and operative conditions may come on at any non specific time. Life in this condition is naturally short; this seems more true in the cases that are sporadic. Strange, too, it is said that tuberculosis is rare among them.

In the case pictured, a child of twelve, the photograph tells the condition of development and the attitude of physical strength; the physiology is there very noticeable and the condition such that makes one marvel. In this case there was no antecedent history,

the condition being of the sporadic type. Treatment as by the gland implantation and feeding proves, the younger the more encouraging and in the sporadic type for several reasons more favorable in result. At every age a trial should be made, and it must be remembered that showing benefit means a life-time indulgence; always, what is called underdevelopment must be reasoned, and foetal rickets considered.

The truth of all this tells of a much possible error in our modern day pathology or interpretation of disease that time and tentativeness must and can alone solve.

Within human phase truthfully it is: "An error in the name is nothing when there is certainty as to the person."

Hawaii as a Location for a Sanatorium for the Tuberculous.

By E. S. GOODHUE, M. D., Resident Government Physician, Kona, Hawaii,
Holualoa, Hawaii.

While the climate of Hawaii in general may be too damp to be called "ideal" for tuberculosis, so far as I can discover (and I have given the matter some years' study), there are locations in Hawaii which have a climate as good if not better than any in the world. Outside of sanatoria—in them pulmonary consumption is cured in almost any climate—Colorado offers advantages over Hawaii to a small per centum of cases of a special nature.

A doctor who sends all his cases of phthisis to Colorado is doing harm to some of them.

Theoretically, California has a good climate, or good climates, but, with all its sunshine and aridity, it has a damp climate sometimes for months at a time.

The winds and dust storms of Southern California and the Southwest generally, including Arizona, New Mexico and Western Texas, are exceedingly trying to most cases of pulmonary trouble, and particularly to tuberculous "throat" cases.

High wind without dust is depressing to advanced phthisis, even the constant Trade-wind common to windward Hawaii is detrimental. Excessive dry heat is unfavorable, too, and the best locations

of Arizona and New Mexico as well as Western Texas, are very poor locations for our cases during the long summer months.

Besides, few of these places furnish a forested area which has been found to be an advantage to a climate used as a therapeutic measure in the treatment of tuberculosis.

Not only the variation in pressure induced, but the alteration in absorptive power of the air, and a possible influence in the increased exchange of chemical properties, as oxygen for carbon-dioxide. These variations are furnished not by a small grove of trees, but by an extended forest area such as we have on the western slopes of Mauna Loa and Haulalai. I know of no other place which provides an equally adequate belt of forest.

I am not prepared to be specific, that is, analytically so in regard to these variations, pressures, and absorptive qualities, but shall be when my studies of these western slopes are completed.

I am camping in different sections, and making sectional observations therein, and will be able to speak rather positively upon a subject which is almost a *terra incognita* in the phase of meteorology relating to medicine.

Below the forest belt, at an elevation of from 800 to 1000 feet above the sea, in the best locations in Kona, there are few trees. A sanatorium or a colony of campers at this elevation should be among trees, preferably eucalypti or ironwood, both of which grow well here.

These supply shade enough but not too much, and are a source of comfort to tent dwellers particularly.

Immense tracts of land exactly meeting sanatoria requirements, are to be found here.

They are not good for much else, being dry and lava strewn. Lying on the mountain side, with small patches of fertile soil on them, they are ideally adapted to the needs of a colony of tuberculous patients.

As is well known, one of the first requisites for the treatment of tuberculosis is an outdoor life.

How to secure this in the fullest and most constant way, has been the difficulty.

The Nordrach Ranch plan adopted in several places has been found advantageous in many ways.

It has its faults, due chiefly to the necessities of the climate common to the locality in which the system is practised.

At Fort Stanton, the hospital sanatorium, under the supervision of the Marine Hospital Service, consists of tent-houses, an improvement on the Nordrach houses perhaps, but still not all that a tuberculous patient should have or could have in Hawaii.

The idea is to have first, a good location, then enough ground for a certain number of tent-houses which are made as open as the climate will allow; isolated, yet forming part of a colony.

In this colony are administration room, offices, dining rotunda, kitchen, laboratory, morgue, crematory, lavatories and privies, all carefully and conveniently placed.

I have devised a modern tent-house which I believe (naturally), is an improvement on any of the others, chiefly because our climate permits of the arrangement.

Several of my patients in Kona are living in such houses, all of them satisfactorily.

Unfortunately, all of them are not in the best locations, the occupants not being able to live away from certain conveniences they desire.

The house is comparatively inexpensive; a village of them with the necessary administration buildings could be erected and equipped at a much smaller cost even here, than is required for the large, old fashioned sanatorium of other climates.

When after much travel and study an expert Commission on Tuberculosis reported on the best site for a State Sanatorium, the following were the requirements:

A country place; accessibility; a low degree of humidity; equality of temperature; freedom from winds, especially eastern winds; surrounding forests; a hill side; elevation 1000 feet; freedom from fogs; graded ascents desirable; a gentle slope; good water; forested areas near by; a previous soil; freedom from dust; a sightly location very important; removed from disturbances like the noise of trolleys, cars, etc.; a place where eggs, milk, vegetables and general produce is grown. Every one of these requirements is abundantly met here in Kona. No country in the world needs a state sanatorium more than Hawaii does at this moment, and no place in the world offers a location with such natural advantages.

These advantages I have stated to the presidents of the various boards of health in Hawaii, and to them and others urged the necessity of establishing a sanatorium for the care of our tuberculous people. I am glad to see that our present governor is giving attention to this and other health matters in the territory.

This means, I think, that all that can be done for the good of the territory will be done, for the habit of going thoroughly into the details of every matter before him which he acquired while he was Chief Justice of the Supreme Court of Hawaii, will bring to the notice of Governor Frear many points overlooked by his predecessors.

Report of a Case of Infantile Scurvy, Associated with Rickets.*

By P. JORDA KAHLE, M. D., New Orleans.

Before going into the details of this case let it be understood that I do not pretend to be an expert in diseases of children, neither do I report this case with a view of soliciting such practice. My line of work is entirely in another direction. This case is reported for Dr. Butterworth as it was more convenient for me to take notes than it was for him.

The association of scurvy with rickets is not invariable. It is of frequent occurrence, and the cause of both is to be found in the nature of the diet. In the case reported to-night, in which the condition of the mouth is of special interest, the diet seems entirely responsible as you will see from the history:

Family history, good. Mother, age 31, is in good health, has had two children, age, 3 and 4 respectively. Labor in all cases normal. When this baby was born, mother had been in labor one hour.

Previous History: Except for an attack of whooping cough and lately chicken pox, baby has always been in good health. When two months old it was put on Horlich's malted milk. Seemed to be doing nicely; began to sit up at six months; at eight it began to stand and to support itself on chairs; so far it has cut eight teeth, the first of which appeared when baby was seven months old.

* Read before the Orleans Parish Medical Society, May 24, 1909.

Suddenly, about three weeks ago the child refused to stand and a physician was consulted. The condition of the gums and inability to stand were attributed to lead poison. Especially so, when some toys with which the child had been playing were discovered to be made of lead. The child gradually got worse and finally refused to sit up unless supported. It showed a marked tendency to remain in the position placed and seemed to prefer to be on its back, screaming if even approached. On questioning the mother she recalls that the child had not suddenly lost the use of its legs, but that the onset had been gradual.

General Appearance: Child looks pale, but apparently fat, the facial expression would denote pain, skin tan, with many brown blotches on various parts of the body, which vary in size from a half dollar to the palm of a man's hand. When in sitting posture legs are drawn up, the right leg especially so, and are everted and immobile. When child is on its back, legs are everted and immobile.

Examination: Head—No changes in bony structure that would attract attention except a large anterior frontanelle. The hair is not plentiful, especially over occipital bone. Scalp is tender even to light brushing. The face is pale, with some of the veins on the forehead bluish and prominent. The eyes have an expression of fear and anxiety. The lids are slightly puffed, the conjunctiva are normal. The mouth contains eight teeth, the gums are very much swollen and spongy, of a purplish hue, and bleed easily. Some ulcerated spots are to be noticed. The throat is normal. The upper limbs are flabby and tender to the touch. There is marked enlargement of the lower ends of the radius and the ulna. The tenderness mentioned here is recent, and apparently increasing daily.

The thorax shows some changes in shape. The costal border is prominent, Harrison's groove is present, and there is marked "beading" at the junction of the ribs and cartilages. The heart is normal. The lungs are also, except for a few moist rales.

The abdomen is not very prominent. The spleen is slightly enlarged and can be felt beyond the costal border. The liver is enlarged; the vertical diameter is fully one inch greater than normal. The lower limbs are flabby and soft, very tender to the touch, are immobile and show marked enlargement at lower end

of the tibia. There is some slight enlargement at the upper end also.

Blood: No examination made. Urine is normal.

The stools are pultaceous, and contain blood-stained mucus. They are sometimes slimy. They vary from a dark brown to a greenish black, and average three to five daily.

Symptoms: Child is peevish and fretful and irritable, crying almost continuously, sleeps badly, has not had, and has no temperature, sweats profusely about head and neck, especially at night.

Diagnosis: Infantile scurvy, associated with rickets.

Treatment: Three or four teaspoonfuls of orange juice daily, same amount of beef juice. Fresh air, hot bath at night, followed by light massage as soon as tenderness permits. Diet changed gradually so that in the course of time fresh goat's milk will be substituted for the Horlich's. Chloride of lime, 1 gr. t. i. d. (to be increased if indicated). Syrup of iodide of iron and cod liver oil to be given later.

The child has not been examined since treatment was begun ten days ago, but a letter from the mother indicates that improvement has been rapid.

Pathological Sleep: a Manifestation in Certain Nervous Diseases.*

By E. M. HUMMEL, M. D., New Orleans.

Analysis of the phenomena of natural sleep has shown that a sleeping man is not the half-dead creature he was commonly thought to be. Not only do all the vegetative functions continue with slight abatement, but most, if not all, the so-called subconscious aptitudes, which we are accustomed to exercise in the absence of attention, can, by means of careful stimulation, be called into play without waking a sleeper or perceptibly diminishing the depth of his slumber.

Discussion of this subject might well be prefaced with a description of the manifestations of natural sleep, but lack of time forbids that I attempt doing so here. It will be sufficient to em-

* Read before the Orleans Parish Medical Society, May 24, 1909.

phasize that physiologic sleep involves only arrest of consciousness and the higher psychic activities by means of which we confine our fancies to logical bounds, cogitate, and meet the issues of an extraneous world. Pathological modifications of the normal sleep state, then, implies an accentuation or prolongation in the arrest of consciousness or some other alteration out of keeping with what is ordinarily observed in natural repose. However, I do not wish to be understood as referring here to any of those morbid conditions caused by the introduction of narcotic substances into the system, intoxications, gross pathological processes in the central nervous system, etc. We are confining attention at present to those peculiar manifestations of suspended consciousness which appear rather spontaneously in, and as one of the chief features of, certain obscure neuroses. These neuroses have for the most part resisted explanation. Many European authors have referred to them as narcoleptic and hypnagogic states, etc., but, like natural sleep, they have proven elusive to intimate study, and a good deal of uncertainty remains as to their real nature and causation.

My interest in such conditions was recently aroused by several cases in private practice; and the method I have adopted of treating of the subjects consists of an informal reporting of two of these cases, with some deductions as to their nature and probable cause. I may mention that I have not overlooked the fact that in major hysteria morbid somnolence is not infrequently observed. It is a frequent occurrence in this condition, where double personality is observed. Transition from the normal to the pathologic personality, and *vice versa*, is usually effected by the intermediation of a condition of somnolence. I am inclined to think that the majority of these cases are obscurely related to hysteroid states.

The first case I shall refer to is that of a lady, *aet* 30. Her antecedents are pronouncedly neurotic. In temperament, physical appearance, etc., she exactly resembles her mother, though the neurotic tendency is not quite so pronounced in the latter. The patient has been brought up in ease, and, through being allowed to follow a single inclination, her education has been rather one-sided. She has never known necessity, or experienced any strong incentive to engage in such activities as tend to develop strong

character lines or to incite any very deep interest in life. She married at 19, and bore one normal child. Marital venture, however, proved unhappy, and she has otherwise been subjected to a number of domestic ups and downs. She gives an interesting neurological history, which lack of time forbids my relating here. Since coming under my observation she has on repeated occasions fallen into states of deep somnolence, from which she was at times aroused with great difficulty. These attacks, when not interrupted, have lasted 72 hours. While in this somnolent state the pulse sometimes slows down to 45, and the temperature is usually a half degree below normal. The urine is scant and concentrated, the patient sometimes going 24 hours without voiding; constipation obstinate. Respiration is very shallow, and there is no pause between inspiration and expiration. In fact, all the vegetative functions appear to be acting feebly. She can be aroused only with some difficulty, and if let alone will immediately lapse again into sleep. On two occasions she emerged from the somnolent state in a changed personality, in which altered condition she remained for two days, to again become well by passing through a drowsy spell. She presents a number of so-called hysterical stigmata, some of which are, however, observable only during or just before the somnolent spells. Immediately preceding one of the attacks of morbid sleep I have found her pronouncedly anesthetic and analgesic over the skin, and mucous membrane of the mouth and conjunctiva, as well as the corneal surface, and this condition persists throughout the attack. I would like to draw attention especially to this fact, as I intend referring to it later as offering a probable clue to the explanation of the morbid arrest of consciousness. Aside from the nervous up and downs to which her neurotic temperament subjects her, this woman enjoys good health, and in some directions is decidedly talented. Two other similar cases, one male and one female, have come under my notice. The woman, when I first saw her, had been asleep over four weeks, more or continually. In other respects these two cases are like the one just described, and do not merit a detailed account in this connection. They are both anomalous cases of major hysteria.

The other patient to whom I wish to refer in detail is a man,

aet. 42; born in Illinois; family history good; no neurotic heredity. The personal history is likewise free from any incident of consequence to his nervous health. At present he lives in one of the country parishes, where he is engaged in the timber and sawmill business; is married and has two healthy children. Has lived in this climate for eighteen years. The patient was referred to me by Dr. E. D. Martin, with the complaint that he occasionally failed to wake up in the morning, and that he could be aroused from this prolonged slumber by his wife only with the greatest difficulty. His wife was much alarmed lest he might at some time sleep on into oblivion. In all respects he considered himself perfectly well. Physical examination showed a well-developed, well-nourished man, presenting no suggestion of any somatic disease, with the exception of torpid condition of the gastro-intestinal functions, constipation and flatulence. The neurological examination was absolutely negative. He was rather reticent and sedate in manner, but was regarded by his friends and acquaintances as a level-headed man of splendid judgment, as he was selected by them Mayor of his town at a time when the peace of the community was threatened, because he was thought to be the most cool-headed man among them. This exaggerated gravity of demeanor was the only noticeable thing about the man suggesting a neurosis. The somnolent attacks had been occurring with increasing frequency for the past five years, eighteen months intervening between the first and second attacks. At the time I saw him he was likely to have them as often as twice a week. Patient stated that skipping his evening meal was very likely to bring on an attack, and on the occurrence of one of these spells he was immediately helped out of the prolonged somnolence by partaking of food. He was firmly convinced that going to bed with an empty stomach had a great deal to do with his trouble, and he very carefully avoided this. On my suggestion he remained in the city several days for closer observation, and engaged a room at one of the hotels. In anticipation of one of his attacks the clerk was instructed to have his room rung at an early hour in the morning, and, if he did not respond, to send some one to rouse him. The hotel employees neglected to do this. On his failure to call at my office on a given day I visited his room at 3:30 P. M., to find him in a profound slumber. He roused himself sufficiently

to drag himself to the door and unlock it, but fell helpless to the floor before he could return to bed. He had slept seventeen hours. On retiring he had fallen presumably into a natural sleep, which had deepened into what, at the time I saw him, amounted to narcolepsy. When I entered the room he seemed to have a fair appreciation of his surroundings, but could respond to questions only in a very imperfect way because of the awkwardness of articulation. His words were enunciated very imperfectly and in a droll, clumsy manner, most exactly described as thick speech. On attempting to dress and move about the room, he displayed a similar awkwardness in the execution of voluntary movements of the extremities. At first he could not stand erect without assistance, and there was a peculiar tendency to move in a contrary direction from that intended. Sensation was greatly blunted. The special senses were active; the deep reflexes were exaggerated; pupils active to light and accommodation. Patient seemed to be in a clouded state of consciousness, which, together with the sensory and motor disabilities, gradually cleared up until he was himself again—in about an hour.

The return to normal was greatly hastened by the application of strong faradism and the taking of a small quantity of food into the stomach. In a foggy way he remembered what had transpired, and said it had seemed to him as though his limbs weighed tons and that his volition was paralyzed.

Intermediate states of consciousness transitional from natural sleep to wakefulness are commonly termed hypnagogic conditions, and have been extensively studied by Manaceine, Schnittmuller, Baillarger, Maury and others.

The condition observed in this patient, however, seems to have been something more than that. Not only were consciousness and the higher psychic activities partially arrested, but the cruder nervous aptitudes, ordinarily not involved in lighter conditions of somnolence, were enfeebled and disordered. Unless subsequent developments in this case disclose the incipient formation of some cerebral growth, such as tumor of the hypophysis, or the approach of a grave nervous malady, I would be inclined to look upon this curious condition as the essential manifestation of one of those obscure neuroses written of especially by Anjel, Manaceine, Dickson and Maury.

I will close these rather fragmentary observations by making a somewhat off-handed attempt to explain the occurrence of morbid sleep, especially in hysteroid conditions.

You have noticed that when a man wishes to invite sleep he retires to a quiet, dark apartment, places himself in a comfortable posture, closes his eyes and turns his attention away from everything else to absolute repose. Now the purpose of this rather simple and instinctive procedure is to eliminate as many of the sensory stimuli which fall upon consciousness from the exterior as possible. Attention is deliberately diverted from such as cannot be thus gotten rid of. And gradually by a species of auto-suggestion consciousness is arrested and mental activity is lulled into repose. The purpose of these accessories is evidently isolation of the sensorium from sensory impulses flowing from without, as the first and most important step in the induction of sleep; whether this be accomplished by retreating from the stimulus, or by annulling it by diverting the attention therefrom, the result is quite the same. No one has ever defined consciousness, but it seems sufficiently obvious that as a cerebral process it is sustained by sensory impulses, arising in the various tissues of the body, and those coming from the environment via the special senses, beating upon the receptive ganglia in the cerebrum. All hypnotic drugs and measures act by depressing the sensory side of the nervous system and thus hindering the appreciation of stimuli, in this way reducing consciousness.

In regard to hysteria, it seems that in certain phases of this neurosis consciousness is narrowed, diverted, contracted, etc. Janet insists quite strongly that these peculiar distortions of consciousness constitute the essence of hysteria. At any rate, the paralyses, anesthetics and other disabilities imposed upon the subject by hysteria are most readily understood by assuming that there has been a recession of consciousness from those cerebral fields in which are represented the functions lost.

In seeking an explanation of pathological sleep as observed in the cases related, it has occurred to me that the phenomenon might be accounted for by assuming that consciousness is enfeebled or diverted from the centers for the reception of the usual stimuli, so that the subject is left isolated from the chief incentives to wakefulness and his lapse into somnolence is inevitable. I have



ILLUSTRATING CASE OF PELLIAGRA.
(Dr. Bass' ARTICLE.)

before referred to the generalized anesthesia observed in one of the cases just before sleep supervened, and such is the significance I have assigned to this rather commonplace manifestation of hysteria in this instance. The question might be asked as to why all cases with anesthesia do not have a tendency to somnolence. In explanation it might be assumed that when somnolence occurs the enfeeblement of consciousness has been greater and the anesthesia more widespread and pronounced, and that perhaps recession of consciousness has taken place from certain cerebral areas and in a peculiar way, such as to most likely annul stimulation.

Of the hypnagogic condition of the last patient I can offer no explanation other than there was a peculiar tendency of consciousness to recede further than normal during natural sleep and thus deepen physiologic sleep into a morbid condition which resisted efforts at interruption. At any rate, while the similarity of this condition to hysterical somnolence is rather remote, it seems probable that its occurrence is somehow dependent on the existence of a hysterical temperament in the subject.

Pellagra; Report of Eleven Cases from Mississippi. Presentation of a Case.*

By C. C. BASS, M. D., New Orleans.

Pellagra is a trophoneurotic disease associated with ingestion of spoiled or diseased corn products, usually bread, and presenting a triad of symptoms: Dermatitis, digestive disturbances and depression, terminating usually in melancholia, dementia, insanity, emaciation, exhaustion and death. There is pigmentary degeneration of the brain cord (except posterior roots), heart muscle, liver, and sometimes spleen and intestines.

It is generally considered to be due to eating spoiled maize. Just what constitutes spoiled corn, however, does not seem clear, but "musty" is the term usually applied. Lombroso was able to produce experimental pellagra with a fatty oil extracted from musty corn, and believes this the cause of the disease. It is noteworthy, however, that when the disease is well established eating supposedly sound corn will cause a return of symptoms after the patient has been apparently well.

* Read before the Orleans Parish Medical Society, June 14, 1909.

In addition to corn, sunlight and warm weather seem to be necessary. The disease occurs only in warm weather and cases that live to winter usually pass it free from symptoms, to develop them on return of warm weather and especially after exposure to the direct rays of the sun. That corn and direct sun's rays are necessary factors can hardly be doubted, but it is not settled that these only are necessary. The fact that only one member of a family may be attacked, though all partook of the same corn, is very suggestive. It is suggested that musty maize may bear a similar relation to pellagra as stagnant water does to malaria. No less an authority than Sir Patrick Manson doubts the maize theory and says if he would look for the cause of the disease he would search along the line of the protozoan diseases.

There is no evidence that the disease is contagious.

The symptoms may be considered under three heads: (1) cutaneous; (2) digestive system; (3) nervous system. They vary greatly with the severity of the disease, from the case presenting mildly only a part of them to the most severe, in which all the symptoms are present and the patient lives only a few days or weeks. The attack usually begins with diarrhea, followed in a few days by salivation, sore red mouth and tongue, and sometimes vomiting. The tongue usually is tremulous and indented and the process resembles much that on the skin. Frequently anorexia and peculiar likes and dislikes for food and especially water are noted.

Skin. Surfaces of the skin exposed to the direct rays of the sun, except the palms and soles, are affected—the genitalia sometimes. The patient usually remembers some time when the hands were exposed and soon began to burn. A bilateral erythema promptly appears, to reach its maximum in two or three weeks. Exfoliation now begins. There may be vesicles or bullæ. The skin slowly sheds in flakes, leaving often red, moist, tender skin beneath. After two or three weeks more the hands get pretty clear, provided further exposure has not occurred. The skin is left atrophied and pigmented after a few such attacks. The accompanying photographs, taken during the height of the dermatitis, of the present case, show well the effect of the sun. Bands of normal skin appear where the rings were worn. The wrist bands are also quite characteristic in the case. The process may

be so severe as to leave after exfoliation an eczematous, weeping surface, which heals very slowly. The feet may be affected if patient goes barefoot. The palms and soles are never involved.

Nervous System. The nervous symptoms are about what would be expected to result from a slow (or sometimes rapid) destructive process of the central nervous system. The motor symptoms are general weakness, with, later, muscular twitching or jerking and finally paralysis, especially of 3rd nerve, making patient see double. Reflexes are much exaggerated until late, when they are absent. There is increased touch and pain sense. The patient has a "don't care," apathetic look and movement. Melancholia is a prominent symptom. Later dementia and insanity develop. Many of them die in the hospitals for the insane. Many of them commit suicide, especially by drowning.

Diagnosis. In most of the cases the diagnosis is very easy after one is at all familiar with the disease. There is no other disease presenting the syndrome of the characteristic dermatitis, digestive disturbances and the depression. From scurvy, acrodynia, purpura, erythema, multiforma and allied conditions, the location on backs of hands, lower forearms, face and dorsum of feet; character of skin lesion, a dermatitis followed by vesiculation or degeneration with pigmentation; salivation and diarrhea; no pain or swelling or hemorrhage of gums; the depression and history of corn eating, indicate the diagnosis.

Prognosis. Very few cases recover. Ten per cent. of the rural population of large sections of Italy and Roumania have pellagra. Though the majority finally die, others appear to recover and remain well. It seems quite certain that if the patient is not removed from the cause of the disease it continues to recur in season until a fatal termination is reached. Most of the cases reported in this country have died, but the disease was not recognized and maize withdrawn until too late to hope to get brilliant results. Just how much the prognosis would be changed by treatment does not seem clear from the literature.

Treatment. The treatment is withdrawal of corn products and symptomatic. Arsenic has been long used and recommended. Babes, in Bucharest, reported in 1908 brilliant results from atoxyl, and the following recent report from the Cairo, Egypt, asylum expresses the general opinion on its use from everywhere

it has been tried: "Without taking too favorable a view as to the success, we can already maintain that a means has been discovered which can do more than all others heretofore tried. and which seems destined in combination with rational diet to check the misery caused by the disease." Cole, of Mobile, has recently reported an apparent cure by blood transfusion from a cured pellagrin.

On reading the reports in the last two years of now more than one hundred cases in the Carolinas, Georgia, Alabama and one from Texas, and description of the disease, I recall a most typical case seen in consultation in 1907. Since reading the literature extensively and acquainting myself with the disease, I recall two others. In addition to these I have the report of two now at Hamburg, Miss., and three occurring at Tylertown, Miss., one at Columbia, Miss., and still another at Gloster, Miss. These are briefly tabulated below. Though there is a possibility of error in diagnosis in some of them, it is not probable. They have all been seen by myself or others who have seen my cases, and the picture is so typical that a layman would usually make a correct diagnosis.

Case 1. Ainsworth, sent me by Dr. R. E. Sylverstein, from Tylertown, Miss. Sick in McComb City, Miss., in 1906. Went to pieces, couldn't eat, collapsed from weakness. No peeling. Came to Tylertown from Crystal Springs, Miss., June, 1907. Took diarrhea, weakness, characteristic erythema, died in October of exhaustion.

Case 2. Mrs. G., reported to me by Dr. Sylverstein. Diarrhea, melancholia, tried to commit suicide twice, characteristic erythema on hands, death in two months from exhaustion. Had lived at Wesson, Miss.; laborer's wife. Used store meal.

Case 3. I. R. Reported to me by Dr. Sylverstein. Seen in consultation in 1908. Had diarrhea; diagnosed "tuberculosis of bowels." Had typical eruption on hands and feet; melancholia, depression and insanity. Died in a few months of exhaustion.

Case 4. Mrs. B. Reported to me by Dr. Sylverstein. Eruption on hands characteristic, tried to commit suicide with Batley's sedative, nervous, pains in back, melancholia, emaciation, weakness and death in four months.

Case 5. Woman. Reported to me by Dr. T. K. Magee, Hamburg, Miss., who is perfectly familiar with the disease in the case to be shown to-night, he having treated her and lately sent her

down for diagnosis and treatment. Has characteristic, recurring dermatitis and is, in general, similar to the present case.

Case 6. Reported by Dr. A. D. Simmons, Columbia, Miss., after seeing a typical case. Patient has same erythema, weakness, and is now progressively growing worse.

Case 7. A negro at Hamburg, Miss., said by Dr. Calcote, who has often seen the present case, to be very similar, including the dermatitis.

Case 8. T. V. A patient of mine at Columbia, in 1900. Had diarrhea, salivation, red sore tongue and mouth, frequent dermatitis on hands, which became pigmented. Always better or well in winter. After having disease for four or five summers he got in fair health. He took it again last summer and died, having melancholia, diarrhea, sore mouth and pigmentation of skin on exposed surfaces. I am sure now this was a case of pellagra.

Case 9. Baccus, a negro boy, seen by me in summer of 1904, at Columbia, Miss. Had weakness, don't care, melancholic, mental condition, characteristic dermatitis on hands and feet and tongue. Typical case of pellagra in the negro. Improved slowly on Fowler's Solution and appearance of cold weather. Haven't heard from him since.

The case now under treatment will be described briefly and a more complete report of the rather extensive study being made of it, including blood culture, spinal fluid culture, complement fixation tests and experiments in treatment, will be published later. For the sake of priority I would say that a part of the treatment has been lumbar puncture and replacing the fluid withdrawn by normal human serum. A cured case pellagra for donor for this purpose or for transfusion has not been located. I am also having constructed a living room to be supplied with cold air in order to have the patient live in winter all the time. Neither of these have been used so far as the literature at my disposal indicates.

Case 10. Mrs. D., *aet* 35, sent to Dr. E. D. Martin by Dr. T. K. Magee, from Hamburg, Miss., May 24, 1909. Had, in 1905, diarrhea, low fever, weakness, emaciation, melancholia and dermatitis on hands and face. Had some trouble every summer since, but not so bad. Hands would burn on least exposure to sun. Spring of 1909 developed severe dermatitis, melancholia and weakness. Has been seeing double (paralysis of left 3rd nerve)

ever since. No diarrhea this year. For two or three weeks before coming she has gone in the sun and outdoor air, hoping this would benefit her. The examination showed a little external strabismus of left eye. The dermatitis is well seen in the accompanying photographs. Reflexes exaggerated, patient weak, careless, considerable pain and burning of hands and vulva, which has been involved about two weeks. Blood, urine, feces and physical examination negative. Patient especially sensitive to pain, hypodermics, etc. The dermatitis and general conditions have gradually improved, so the picture now is much better than it was three weeks ago. Another photograph, June 10, shows the peelings, which is still not complete. The tongue and mouth have improved very slowly.

Case 11. Woman. Reported to me by Dr. R. L. Hageman, who saw the case in consultation with Dr. H. T. Cuming, Gloster, Miss. Spring of 1908 had dermatitis, characteristic diarrhea, puritis of anus. Tongue and mouth very sore and red. Weakened, emaciated, melancholic. Got better last winter. More severe form of previous symptoms have returned this year and patient is going down rapidly. Contracted the disease at Roxie, Miss., where she remembers to have eaten musty corn meal bread.

Report of a Case of Tubal Abortion.*

By A. JACOBY, M. D., New Orleans.

The case which I report this evening is one, in my estimation, of unusual interest to the general practitioner. For that reason I have brought it before you, as it is one worthy of thorough discussion. It is not my intention to go into the diagnosis or treatment of this condition, but to give you the details of this case and to have you judge for yourselves the difficulty of a diagnosis.

Mrs. H. called on me April 25 at my office, and stated that she had severe pains in the right side and back and had been having a uterine hemorrhage of a varied character ever since her menstrual discharge had begun on April 15. I advised her to go home, go to bed, and gave her a sedative mixture. Several days later I was requested to call, and found that the pain had increased in severity and the hemorrhage of an intermittent character had

* Read before the Orleans Parish Medical Society, June 14, 1909.

continued. After several visits and at a time when the hemorrhage had ceased, I was able to make a vaginal examination. The uterus was retroverted, there was tenderness on the right side, but no evidence of an acute trouble nor could a mass be felt. She then told me that for one year she had been having pains on the right side, of a more or less severe character, and during this time her menstrual period had been irregular, usually later than the time. But in April her menstrual period had begun earlier than usual and had continued intermittently ever since. She was constipated and I gave her broken doses of calomel, to be followed by a glass of citrate of magnesia the following morning. This was on April 30. The day after she had several large actions, with an excessive stool in the evening, with which she had great pain on the right side and collapse. When I saw her, one hour later, she was better, though the pain was still severe, for which I gave her a hypodermic of morphin, gr. $\frac{1}{4}$, atropin gr. 1-150. The next day, as the uterine hemorrhage had continued, being greater or less as the uterus seem to fill up, I advised a curettage and a laparotomy. As I could see no results from a curettage, so far as the severe pain in the right side was concerned, which had been giving her much trouble. On Monday morning, May 3, she consented and she was immediately sent to Touro. Her personal history is that she began menstruating at 14 years, had been regular up to one year ago, and that the menstrual flow had continued for 4 to 5 days. She has had three children but no abortions nor miscarriages. On the morning of May 4 I first curetted, then packed the uterus, did a perineorrhaphy, and followed this by a laparotomy. Upon opening the abdomen, I found the lower right quadrant filled with blood, there being an immense clot and some fresh blood. Upon cleaning out the abdomen, the tube was found ruptured and bleeding. The tube and ovary were removed and ventrofixation of the uterus done. The patient made an uneventful recovery and left the Touro twelve days later. Her general health is improved very much and she feels better than she has in years.

The interesting points in this case are the continued hemorrhage and the pain in the right side. I feel positive that if the family had insisted upon a curettage being done at home first before considering a laparotomy, I would have consented, and it is my belief that any surgeon or practitioner would have been agree-

able to this suggestion, for during the entire time that she was under my observation she had a good pulse, no shock, and her abdominal pains were only severe at times. Another matter of importance to the surgeon is the question of delayed operation in these cases. Certainly, active hemorrhage, if suspected, in the abdomen demands immediate attention. And, as borne out in this case, the delay might have meant the loss of the patient, for the hemorrhage was quite active when the abdomen was opened. I cannot see the wisdom of waiting in this class of cases, and would suggest early and prompt laparotomy. And in this case, when a patient has uterine hemorrhage and severe pains in either side, we should insist upon laparotomy, even though a diagnosis cannot be made. There was nothing to base a diagnosis upon in this case, for examination revealed nothing, but the severity of the pain on the right side, with a continued uterine hemorrhage, made me insist upon a laparotomy. As a rule, in these cases the uterus is curetted and packed with the idea of stopping the hemorrhage. And though the hemorrhage may be checked, the patient continues to complain greatly of the pain in the side and gradually grows weaker, or upon vaginal examination, one may feel a boggy mass in the cul de sac, which will show the necessity of laparotomy. In my case, vaginal examination did not give any evidence of the condition. The uterine hemorrhage was sometimes excessive, at other times scanty. It seems as if the uterus would fill with blood, then there would be a great gush of blood at one time from the vagina; the hemorrhage either ceased or became scanty after this. I wish to call attention to the fact that uterine hemorrhage with pain in the side should be given more consideration than a curettagement. It may be true that these patients do not die from this condition if not operated upon immediately, but still the adhesions that follow, with the future condition of the patient, behooves us to give them immediate attention.

Tumor of the Brain.*

By JOHN B. ELLIOTT, JR., M. D., New Orleans.

I beg to report the following case of Tumor of the Brain:

Mr. E., aged 55, a native of Mississippi, referred to me by Dr. Dickerson, of McComb City, Miss.

* Read before the Orleans Parish Medical Society, June 14, 1909.

His brother died of yellow fever when young. Father died at age 70, cause unknown. Has four living brothers in good health; one brother died of la grippe. Three living sisters, all well. One sister dead, cause unknown.

Personal History: Had usual diseases of childhood. No diphtheria or scarlet fever. Gives no specific history. Had swamp fever in 1873. Indigestion for the past ten years. Has been a boilermaker for thirty years, never missing a day from work in all that time and never late at his work. Habits perfect. No alcohol. Not a heavy eater. Is married and has five grown children, all healthy. In January, 1909, noticed that he could not control his bladder either night or day. February 20, 1909, commenced to feel badly. Slight headache, poor appetite. His wife now noticed (Feb. 26) that he was getting a little drowsy. Would not get to work on time. Would sit down after meals and look around in a thoughtless way. Had to be reminded that the whistle in the boiler shop was blowing.

On March 1, had his first vomiting spell without nausea immediately after breakfast. Very weak and could not go to work. The vomiting has occurred each morning since. He has lost a little flesh. Bowels are regular. Has occasional cramps in both legs.

The patient came to me with the above history on March 6, 1909. Examination reveals as follows:

Inspection: Large, well-built, well-nourished man. Color good. Weight about 170 pounds. Heart hypertrophied. No murmurs. Slight Arterio-sclerosis. Lungs normal; liver normal. Spleen not palpable. Epitrochlear glands enlarged. Urine showed no albumin, no casts, no sugar; specific gravity, 1021. Patient was very deaf.

In questioning patient find it hard to keep his attention; his mind would wander and he would gaze around the office in a dull, stupid way. Had a marked tremor in left arm and left leg which he could not control. Knee jerks were present. No Romberg, no Babinski. Pupils of same size, seem to react to light. Left pupil would dilate when exposed to strong light. Said he had no pain. Had a marked loss of memory. Patient had to return home same afternoon.

I made on the above history and examination a tentative diagnosis of brain tumor, probably a gumma of the right side of the

brain, and advised that iodide of potash be given in ascending doses.

After return to his home March 7, 1909, he commenced to take the iodide and took finally in two weeks' time as high as 100 grains a day. In spite of this went steadily down hill. Vomiting continued. Loss of memory became much more marked. There was constant loss of urine. Could not swallow solid food on account of choking. Took milk and any liquids well and plentifully. He now lost complete control of his bowels.

He was brought again to the sanitarium on March 24, 1909.

On examination, I now found that his memory had gone entirely. Called me by the name of some man whom he had seen years before, and on being shown a knife said it was something to cut with. Could not recall the word knife. Complained of no pain at all. Had lost flesh and only swallowed liquids. Could move himself easily and got out of bed without difficulty. The marked tremor which had been present on the left side at my first examination had disappeared entirely and he was equally weak on both sides. Was never violent or restless, but slept a large part of the time or stared out of the window and moved his fingers as if he were rolling pills. This was the most constant movement he made.

Dr. Parham and Dr. Hummel now saw the case with me in the endeavor to localize the tumor, with a possible view of operation. Dr. Hummel made an ophthalmoscopic examination and found a choked disc in right eye, which confirmed diagnosis of a tumor of the right brain. He also found there was slight delayed sensation on the whole of the left side of the body. We could not definitely locate the tumor. Both Drs. Parham and Hummel advised against any operative interference.

Patient now began to lose ground steadily. Was sent home and died in about two weeks' time. During these two weeks continued to vomit each morning, but did not become paralyzed in the left side until twenty-four hours before his death. He had no convulsions at any time.

I held a post-mortem at McComb City the night of his death with Drs. Dickerson and Rice. We found an irregular tumor, greyish in color, occupying the whole of the right inferior frontal convolution. It was easily distinguished from the surrounding brain tissue, though numerous shoots of the tumor ran out into

seemingly healthy brain tissue. There was a soft necrotic spot in the middle of tumor mass. There was also a small hemorrhage the size of a quarter in the left inferior frontal convolution. There were a few tubercles scattered along the right edge of the sagittal suture.

An examination of the tumor, by the kindness of Dr. Duval, showed it to be a glioma.

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When is Gonorrhea Cured?

By A. NELKEN, M. D., New Orleans.

Almost since the acceptance of the gonococcus as the cause of specific urethritis, it has been generally held that this organism can linger indefinitely in the genito-urinary tract of the male, giving rise to little or no symptoms, its presence being unrecognized until such time as its host conveys it to fresh soil. Then is lighted up a gonorrhea in the newly infected party, which may be transmitted as an acute attack to the original bearer of the disease.

Throughout the voluminous literature of the subject runs a feeling of pessimism as to ultimate results in the treatment of gonorrhea.

Ricord said that his idea of hell was a place where he would meet those whom he had failed to cure of a clap.

Noeggerath startled the medical profession with the statement that 90 per cent of gonorrheas in men remained uncured and that in every instance the disease was transmitted to the wife.

Lawson Tait said that the man who had a clap should not be allowed to marry until a red-hot poker had been passed through his urethra.

Behrend, as many others, insisted that the disease is incurable. Kromayer contended that the physician should decline the re-

sponsibility of pronouncing a gonorrhea cured. Oberlander, Kollman, Wossidlo and Finger, among others, held that the presence of pus cells is in itself proof of the presence of gonococci.

Chronic gonorrheal infection localized in the kidney or ureter has been occasionally reported. Such cases have not come within my experience. When such infection does exist, it is difficult to understand why there should be absent infection of the lower urinary tract over which the gonococcus is constantly passing. Gonorrheal cystitis is fairly frequent, especially gonorrheal involvement of the region of the internal meatus, due to spreading backward of the infection from the posterior urethra, the mucous and muscular coats of which are continuous into the bladder.

Gonorrheal cystitis is usually an acute disease, tending to spontaneous cure. Occasionally it proves resistant to treatment, but I have never seen a case where the gonococcus could be recovered from the urine six months after infection. Certainly, at no time have I ever found gonococci in the urine in the absence of a distinct and easily recognized specific urethritis. Usually, where an acute gonorrheal cystitis becomes chronic, we find, not the gonococcus, but large numbers of other pus organisms, notably the colon bacillus and the staphylococci.

Of all the genito-urinary apparatus which may harbor the gonococcus for a lengthy period of years, the prostate has long been under the gravest suspicion. Infections persisting without symptoms for even as much as twenty years have been often reported. So important is the prostate considered in chronic urethritis that many surgeons ignore every other possible cause for the discharge and restrict their treatment to prolonged, vigorous and persistent massage of this gland.

It is difficult or impossible to obtain the prostatic secretion un-mixed with that of the seminal vesicles, the ejaculatory ducts, Cowper's glands, or even with that of the mucus glands of the urethra. Thus any bacteriological examination of this secretion is always open to suspicion of admixture from the sources above named. Yet, granting the possibility of contamination, Nothaff, in 120 cases of chronic prostatitis found gonococci in only four cases after one year, and in no case after three years.

Young, himself an ardent advocate of prostatic massage, obtained bacterial growths in only 8 cases out of 26 examinations,

none of which were gonococci. He adds that only in a small proportion of cases did smears show bacteria in the purulent secretion obtained from the prostate by massage.

In thirty smears obtained from cases of chronic prostatitis, I have never been able to identify the gonococcus a single time. In line with Young's observation, I have been able to find bacteria in the secretion in only a very small proportion of these cases.

Acute seminal vesiculitis during the course of gonorrhea is of fairly common occurrence. Yet my experience leads me to believe that this secretion becomes sterile even more rapidly than does that of the prostate. I have never found gonococci after two months, and in the few cases where pus organisms were present they were usually staphylococci or the diplococcus catarrhalis.

The persistence of gonococci in the urethral secretions must be explained by infection in the mucous membrane of the anterior urethra, or in those depressions of the anterior urethra known as the Crypts of Morgagni, or in the follicles of Littre. These regions are invariably involved in acute gonorrhea, and as the infection becomes chronic, the inflammation is localized about the follicles and crypts. The follicles, which cannot be seen in health, appear as prominent red dots on the surface of the mucous membrane. The mouths of the crypts are injected, pouting and frequently seen exuding a drop of pus.

Later in the disease, in neglected or imperfectly treated cases, we find, especially in the region of the crypts and follicles, evidence of hard infiltration—the beginning of urethral stricture.

It might be of interest to discuss briefly here the question as to how cure occurs in gonorrhea. In spite of the claims of enthusiastic doctors and interested manufacturers, we will start with the proposition that if we exclude vaccine therapy, which is yet experimental, we have no specifics in gonorrhea.

We must recognize in gonorrhea an acute self-limited disease, usually local, occasionally systemic, with a strong tendency to produce chronic pathological changes in the soil upon which the infections exist. Granting the value of properly directed treatment, the fact remains that gonorrhea, once frankly established in the urethra, gets well—as do other acute infections—either through reaction in the economy by means of which the body cells are able to destroy the invading organism, or through changes in the tissues.

upon which the organism grows, or, as is more probable, by both of these methods together.

Since gonorrhea is ordinarily a local disease, producing little or no systemic reaction, the first method of cure would seem to be of slight importance in the majority of instances. Yet my case histories show that it is not at all unusual to find a stubborn gonorrhea promptly recovering following an acute epididymitis or epididymo-orchitis. The same result I have seen follow gonorrheal invasion of a joint. Such complications undoubtedly raise the opsonic index of the patient, being, in fact, an auto-vaccination.

In gonorrheal infections of the Fallopian tubes, of the seminal vesicles, of the prostate, and of the urethral follicles where the pus is confined, it seems to me plausible to explain the subsequent sterility of the pus by assuming that the bacteria are destroyed by their own rapidly accumulated toxins.

Jungano, of Naples, in an excellent monograph, recently published (*La Flore de L'Appareil Urinaire Normal et Pathologique*, M. Jacques, Paris, *editeur*) declares that the gonococcus is strictly an aerobic organism, and thus explains his invariable failure to find it in the deep glands in chronic infections.

The toxins secreted by the gonococcus always induce an active phagocytosis. Undoubtedly this is an important factor in the elimination of the germ. The exact importance of the local changes which occur in the mucous membrane of the urethra is not well understood. Bumm, Jadassohn and others have shown that pavement epithelium is highly resistant to the gonococcus, this organism multiplying on the surface, and penetrating only the most superficial layers. Cylindrical epithelium, on the contrary, offers only slight resistance to invasion. Finger held that in the course of gonorrhea there takes place a profound metaplasia of the epithelium in which the cylindrical cells are changed into a more cuboidal or even pavement form.

"In the healing stage of gonorrhea," he says, "the newly formed epithelium, growing from the deeper layers toward the urethral lumen, carries with it the gonococci and finally eliminates them all, provided there is no intercurrent acute inflammation."

Later investigation has served to cast doubt upon the restorative influence of this change in the urethral epithelium. The more recent viewpoint is thus summarized by Casper: "The chronic pro-

cess is essentially a small celled infiltration . . . which seems to have a special affinity for the glandular portions, such as Littre's glands and Morgagni's lacunæ. Some of this infiltrate undergoes absorption and some of it becomes converted into connective tissue, the latter forming a callous or scar. Obliteration of blood vessels follows, as a result of which the cylindrical epithelium is changed into squamous epithelium, which becomes partly cornified."

Whatever may be the true import of these urethral changes, experience suggests that for a more or less brief period following the cure of gonorrhea, the urethra is immune to fresh infection. And, as a rule, subsequent attacks of gonorrhea are apt to be less stubborn than the first, this comparative resistance diminishing with time.

The urethral condition known as "gleet" is an infection in which we find so slight a discharge as to be noticed by the patient only on arising, and thus spoken of as the "morning drop." The secretion may even be so slight as to appear only as shreds in the first urine. Microscopically, this exudate contains pus cells, mucus epithelium (chiefly of the flat or pavement variety) and pus cocci and bacilli in varying numbers. The discharge often increases after any form of urethral stimulation such as may be induced by alcohol or sexual excesses, in which case it is found to contain an increased number of pus cells and bacteria.

I have never been able to find the gonococcus in such cases, although I have examined many hundreds of smears.

In my experience, whenever the gonococcus is present in the urethra, *if the case is not being influenced by local treatment*, the quantity and nature of the discharge is such as to at once remove it from that class of cases described as "gleet." And in this discharge is found without difficulty the typical diplococcus of Neisser.

The point may be raised that in "gleet" the gonococci are so few in number as to be discovered only by cultivation. I have had no personal experience with cultures in gonorrhea, but the reports of capable investigators have discredited this method of diagnosis. Neisser says that he has never met with a single case where he found the gonococcus—if it were present at all—by culture methods and not also by microscopical examination.

Baermann, in 393 prostitutes, found gonococci in 25 per cent.

of the cases microscopically, where cultures gave a negative result.

If we are to deny, then, the possibility of "dormant" gonorrhea, what explanation is to be offered for the large number of cases reported of recurrences, one of them, I recall, being forty years after infection.

A certain proportion of these cases are not true gonorrheas, being due to infection with other germs than the gonococcus, notably with the diplococcus catarrhalis, smears of which, if we are not on our guard, may be readily confused with the diplococcus of Neisser. In a number of these "recurrent" cases, we are justified in doubting the truthfulness of the patient as to the recent suspicious exposure to infection. But the great majority of them can be solved by an examination of the woman with whom our patient maintains sexual relations. A great many women have gonorrhea and are entirely ignorant of it. More or less vaginal discharge is looked on by them as a normal condition. It is only when the discharge is unusually profuse or causes some irritation that it attracts their attention. Thus gonorrhea may be present for a long time, and the first intimation they will have of it when they are accused of infecting their sexual partner. Often they are highly indignant at the suspicion, insisting on being examined by the physician and even then not believing his statement that they are infected. It is only charitable to recognize the possibility of innocent infection of the female organs with the gonococcus. The epidemic character of specific vaginitis in female children who are closely associated is well known, and shows the ease of mediate contagion in this sex. But, other possibilities failing, it is more logical, if less gallant, to ascribe a gonorrhea in a man to unfaithfulness in his mistress, rather than to assume an unnoticed, symptomless infection in himself, dormant for an indefinite number of years, suddenly arising, like Banquo's ghost, to accuse his youthful indiscretions.

"If, on the appearance of an acute discharge, the gonococcus is found, we should seek the source," says Jungano, "not in the man, where the gonococcus finds conditions unfavorable for its persistence, but in the sexual apparatus of the woman, where the microbes can remain for a long time, nourished periodically by the menstrual flow."

I have no intention of under-rating the gravity of gonorrhea.

But it is well for us to take a sane view of the question. Men, desirous of marrying, are constantly consulting us as to whether or not they may safely do so. With a great many of them the "morning drop" of muco-purulent secretion has become an obsession. In such cases, I make a routine examination of the prostate and vesicles. The urethra is measured with the urethrometer and usually an urethroscopic examination made. Nothing of especial pathological significance being found, I stop all injections and advise alcoholic indulgence in moderation. If at the end of a week nothing new has developed, I use an irritant injection either of nitrate of silver or bichloride of mercury. A second examination is made in another week, and if the smear is still free from gonococci and there is no frank pus discharge, I feel justified in advising my patient that he can safely marry. I have never had as yet one such individual to infect his wife.

DISCUSSION.

DR. JULES LAZARD, of New Orleans. Dr. Nelken's deductions differ somewhat from a paper published recently by De Santos Saxe, of New York, who discovers gonococci long after the discharge has ceased. He discovers them by using a double stain.

No later than last week, I saw a physician in the office who did not have gonorrhea, but had gonorrhea several years ago, and by massaging the prostate I was able to detect the gonococcus, using the Gram stain. That is a little contrary to what Dr. Nelken says, but it is a fact, nevertheless.

In regard to a man's mistress having gonorrhea, I have in mind the case of a man being treated here in the city by a very well known venereal specialist. I took a very careful history of the man, and found that the specialist had done really enough for him to cure him four or five times. But his discharge persisted. He would be well for a few weeks and then it would break out again. He would then go back and the doctor would cure him, and he would get gonorrhea again. He wanted me to examine his mistress. Well, if a woman wants to hide gonorrhea, she can do it very easily by taking a douche just before going to the doctor. I irrigated the man with permanganate of potash and separated him from his mistress, and he got perfectly well.

DR. THOMAS RAGAN, of Ruston. Dr. Nelken spoke of subsequent cases of gonorrhea being milder than earlier cases. I was associated with a man in New York City some years ago who did a vast deal of genito-urinary work, and a great many of his patients were middle-aged and old men, and they complained to me that he did not cure them as promptly as he had done some years ago. I have myself seen and assisted him in the treatment of old men who had long-drawn-out cases of gonorrhea, and they had been his patients at different times in their lives before. I would like to know the experience of the profession and Dr. Nelken in particular in treating old men for gonorrhea.

DR. GEORGE DOCK of New Orleans. This is a very important subject. I think Dr. Nelken was very right in calling attention to the former exaggeration regarding the incurability of gonorrhea, but it seems to me possible that his remarks might set up an undue hopefulness in people who do not use all the means of determining when a patient is cured that he has mentioned.

In regard to negative cultures of the gonococcus, if I remember correctly, the names that Dr. Nelken used are those of rather old investigators, who worked when cultural methods were unsatisfactory. Recently this has been changed, and if it is not against the rules of the society I would like to ask if Dr. Duval may be called upon to speak about cultures.

DR. C. W. DUVAL, of New Orleans. I think the paper is extremely interesting. I do not quite agree with Dr. Nelken as to cultures or as to the smears. I had a good deal of experience in this work while in Boston two or three years ago. My experience was with cultures from old cases of gonorrhea, cases of so-called gleet, that with modern methods the gonococcus could be detected rather easily. This was found in some cases some two or three years ago by Dr. Abner Post, who is one of the prominent genito-urinary surgeons of Boston. As to smears, very often you cannot find anything in the way of a Gram-negative coccus, whereas with the milked material from the prostate careful cultures will show the gonococcus in quite a number of cases. Of course, there are a number of cases in which the gonococcus has disappeared. There is a secondary infection, just as Dr. Nelken brought out. You see the staphylococcus, and possibly the pneumococcus. I do not agree with him on the question of the diplococcus catarrhalis causing an inflammation. This organism is purely a saprophyte and

does not give rise to an inflammation. To repeat, in the secretion from quite a number of cases of prostatitis you can obtain the gonococcus by cultural methods; certainly by the modern methods of culturing, namely, by means of blood or hemoglobin, if the medium has the right reaction. There are a great many cases where they are very hard to recover, and in these cases it is a question whether they do exist or not, but in testing the blood of these cases of gonorrhea, the cases where cultures were obtained, you could still detect the—reaction. The reaction disappears quite quickly—within a few weeks—after the organism has disappeared from the body. It stands to reason that the gonococcus can exist for a long time in a place like the prostate. We have a good example in typhoid fever. The typhoid organisms may exist for years in some places like the gall bladder. It has been my experience to find the gonococcus for years in the prostatic secretion.

DR. NELKEN (in closing). Unfortunately, I am not able to take issue on the bacteriology of this question, not being a bacteriologist myself. Most of the bacteriological opinions in my papers are quoted, and I am not capable of vouching for their reliability. However, clinical experience has led me strongly to the position which I take, namely, that we have been greatly exaggerating the probability of persistence of the gonococcus in the urethra and urethral adnexa of the male. If we consider the immense number of men who have had gonorrhea and think of the very small number of them who have on marrying infected their wives, we have to conclude that there has been something wrong in what we have been taught as to the persistence of gonorrhea and the danger of infection. In my experience, I have never seen a woman infected by her husband after I had carefully examined him and felt that he was free from gonococci.

As to the absence of gonococci in the discharges of women being an evidence of their being free from gonorrhea, I am not prepared to maintain that. Lydston makes it a point never to tell a woman that she has not got gonorrhea. When we consider the numerous discharges of women from the genital tract, we see the great difficulty of arriving at a conclusion. I recall one case from whom I made numerous smears, finding nothing, but finally, on getting a slight mucoid secretion from the cervix, finding the gonococci there. She firmly maintained that she was free from gonorrhea.

One of the gentlemen asked as to subsequent cases of gonorrhea being more easily handled than primary cases.

What I said was that subsequent attacks of gonorrhea are usually milder in type and less resistant to treatment than primary cases. Of course, there are exceptions to this rule.

Acetonuria With Relation of Cases.

By L. G. LEBEUF, M. D., New Orleans.

My treatment of this subject is possibly a little ambitious, as I am in no way prepared to treat the physio-chemical side of it. And there is no subject as hard to understand and as difficult to properly appreciate as that of the proper or improper metabolism of the food products in the body. The presence of acetones in the urine, if persistent and in large amount, always mean grave symptoms, severe gastro-intestinal disturbances great nervous depression intense vomiting—so frequent, in fact, that I saw a case once with nearly one hundred paroxysms of vomiting in twenty-four hours; it is really the true reflex vomiting. The cause of this vomiting, according to Alonzo Englebert Taylor, is an increase of toxin, due to an auto-intoxication, associated with protein purin, carbo-hydrate and fat metabolism. It can be recognized by the presence of acetone in the urine. Van Jaksch divides the different kinds of acetonuria in: 1st, the febrile; 2d, the diabetic; 3d, the acetonuria resulting from certain kinds of cancer; 4th, the acetonuria resulting from or seen in phychoses; 5th, the acetonuria which result from auto-intoxication.

Though I have seen a great deal of diabetic types of acetonuria, it has been generally easy to control before coma or too serious symptoms resulted. Generally a simple increase for a short period of the sugar in the diet seems to help. The two types which have given me most trouble are the first and the last kind, the febrile and the autointoxication types, because I have been more in contact with them, and the notes which I wish to relate are of these two. The very young females are the most frequently affected; the nervous, delicate, badly nourished cases also. For many years I treated these cases symptomatically, unfortunately losing a great many. Since I have begun the use of bicarbonate of soda and the

ingesta or greater absorption of salts with the judicious restriction of fat combustion, and the reduction or interruption of carbohydrate metabolism, I have been saving my cases. Osler's *Modern Medicine* says: "The mode of intoxication may be referable to the substances themselves or to their behavior as acids. The term *acidosis* expresses the view that in their behavior as acids lies the chief harm. Acetone is but slightly toxic. The salts of diabetic and beta-oxybutyric acid have some toxicity, which is probably greater in diabetic, because of the inability to oxidize them. . . . The carbon dioxide of the blood in diabetic coma has been reduced to less than half the normal. This cannot be necessarily attributed to any alteration in the reaction of the blood, and it is probably the result of moribund suboxidation. The sudden onset of symptoms in the acute cases of acetone complex can scarcely be explained on the ground of simple acidosis, yet alkali treatment here is most effective. It is a noteworthy fact that the ingestion of sodium bicarbonate is followed, as a rule, by recovery in non-diabetic cases—an exception in diabetics. Although this does not in itself antagonize the contention that the intoxication is simply an acidosis."

Though I have barely skimmed over this subject, let me call your attention to its importance and let us all watch for the pure catholic symptoms, because if we make a diagnosis of the disease now and then, and succeed to classify it according to its etiology, we will be able to do much good, as we have such a simple course of treatment at hand. The simplicity of the test also is within the easy reach of all practitioners. I chose Lieben's test of many others it is the one I use and the one used in clinical laboratory work also.

LIEBEN'S TEST: The urine is distilled (and I only boil it), then some of the distillate (or boiled urine) is alkalized with liq. potassæ. Then a few drops of Lugol's solution are added (plain tincture of iodine will do). If acetone is present the distillate assumes a turbid yellow color, due to the presence of iodoform with its characteristic odor, and with the precipitation of the minute hexagonal and stellate crystals.

Case No. 1: Beth L., white female child, age seven. A badly nourished body, of a marked nervous diathesis. I had treated her since babyhood, during which time she had five or six attacks of

autointoxication or gastro-intestinal disturbances. At least twice she was very sick; once during the period of an attack she had an anemic murmur at base of heart, and another time she had some albumin in urine. Each attack was associated with most intense vomiting. The little sufferer would remain days without being able to retain the least food on her stomach. An anorexia, which when satisfied in any way by the least drop of water, threw the child in a perfect collapse from the violent attacks of convulsive vomiting. On April 27, 1908, my little patient was taken sick again of apparently a similar condition. At the time of her taking sick, her little brother was laid up with a light case of scarlatina. She had a sudden onset of fever, $104\frac{1}{2}$ per cent, with complete repugnance for food, continuous vomiting; the least movement of her body in bed bringing on the paroxysm of vomiting. The tongue was coated and parched, the coating of a peculiar black, cafe-au-lait color. For three days I was not able to move her bowels, though purgatives and high enemas were vomited and returned without effect. On the third day the child began vomiting a thin, black, coffee-ground substance, and later some black blood, which lasted forty-eight hours. When she vomited she seemed to ejaculate it like in the yellow fever black vomit. The temperature rose to 106 and was controlled only by ice-bags to head and abdomen, and systematic sponging; Normal salt enemas used every two or three hours, at temperature of 90. On the fifth day the child was in extremis; pulseless, cold extremities, pinched nose, dark circles around mouth and eyes; heart irregular and tumultuous. The urine showing for the first time presence of large amount of acetone bodies, and feeling that we had an extreme case to deal with, I injected her with one pint of warm salt solution under each breast. I repeated the hypo-dermoclysis every four hours, twice again, giving one teaspoonful of milk of magnesia, by the mouth, three times daily, with 10 gr. of sodium bicarbonate. The child began to improve after the first subcutaneous injection. Pulse returned to wrist and reaction seemed to start again. Besides the alkaline treatment, the drinking of a great deal of vichy water also was used; it took us two weeks before the acetonuria disappeared. During the worst of her attack there was also profound coma. I had to use strong black coffee by enemas, hypodermics

of nitro-glycerin and strychnin. During convalescence I fed her entirely with predigested milk, the white of egg and Ducro by high enema. This child has since made a complete recovery. She had a slight return of this condition once in New York last autumn and once this winter; but the mother always recognized the condition, and, sending me a specimen of urine for examination, quickly began the diet treatment—i e., omitting fats and oils, using sodium bicarbonate, and checked it before a serious attack came on.

Case No. 2. This child, also a white female, age five, has had since birth frequent attacks of either acidosis or gastrointestinal disturbances, which always made her very, very sick. She had always been relieved previously of vomiting by a process of starvation and by final use of small doses of calomel. In the two attacks I saw her in, quickly recognizing that the food catabolism was due to acetonuria I was able to relieve her very easily by the usual administration of sodium bicarbonate, three grains every two hours, and by rectal normal salt douches. The summer after her last attack, her parents went to their former home in the mountains of Tennessee. Shortly after arriving there the child was taken with a violent poisoning, and whether she was properly treated or not she died. I have heard since from the mother, who wanted the attending physician to follow the treatment I had used heretofore, but he insisted that this was a pernicious bilious malaria, and used large doses of quinin and calomel. The child died on the sixth day. He may have been right, but I doubt it.

Case No. 3. Is one which is still under my observation. a white female child of eighteen months. She was taken sick on April 8, with vomiting at night and temperature at 100 2-3 per rectum, and intense pain in micturition, to such an extent that it was only by giving her hot sitz baths that we were able to get her to void her urine at all, and each time she would scream with pain. When I attempted to catheterize her to get a specimen, she was so swollen and suffered so much that I desisted in the attempt. It was only on the third day of the attack that I could get a good specimen of the urine, and that showed by Lieben's test of liq. potassæ and Lugol's solution the presence of acetone. The diet and sodium bicarbonate, five grains, three times daily in vichy water, relieved her very promptly. The pain in this case seemed to have been due

specially to the thick, gritty-like deposit or sediment of the urine, which must have irritated the urethra.

DISCUSSION.

Dr. E. D. FENNER, of New Orleans: I feel a deep interest in the subject of the paper just read by Dr. LeBeuf, for the reason that I have been very much interested in the examination of the urine in young children. I believe it is a matter entirely too much neglected, and that a great many indications for treatment in children might be furnished if we did make more frequent examinations of their urine in sickness. I think it should be very distinctly borne in mind in relation to acetonuria that this is not a disease but a symptom, and, so far as my experience has gone, an indication for treatment which is frequently of great value in terminating what frequently are rather obscure symptoms.

One of the first cases of acetonuria in childhood which I recognized and had an opportunity to treat was in a little boy, who, some three years or more ago, was brought to me with a history of attacks at intervals of about a month, consisting of vomiting, pains in the abdomen, and absolute locking of the bowels for several days. His only relief from the pain and violent vomiting was from a hypodermic of morphin. The symptoms disappeared as soon as the bowels could be freely opened by the administration of calomel and large doses of bicarbonate of soda. The physician in charge sent him finally to me, because he declared he had no idea what was the cause of these attacks. I suspected that there was some urinary condition, and on examination found the acetonuria. The history indicated that this was one of those cases of cyclic vomiting. I put the patient under appropriate treatment and was able to postpone the next attack for nearly five months. His mother became careless about the diet and the alkalies, and an attack developed, but it was rapidly controlled by large doses of bicarbonate of soda.

About a year and a half ago I was called to see a young girl ten years of age. She was in profound collapse, vomiting everything she would eat, and frightfully dehydrated, until she looked like she had been sick for weeks. No one had any idea as to what the nature of the condition was. I suggested that an examination of the urine would reveal the presence of acetone. We made the

test and found acetone present. A hypodermic of morphin temporarily checked the vomiting. We then gave large doses of soda, and that terminated the case in a day or two, and this child did not have another attack for many months.

The case that I saw with Dr. LeBeuf was one of the worst that I have ever seen. This patient came nearer death than any patient I have ever seen suffering from the symptoms which are explained to us by finding acetone present.

So much have I been impressed that a certain group of symptoms, characterized by extreme restlessness, terrible thirst and violent vomiting, are due to this auto-intoxication that about three weeks ago I received a telephone message from a doctor out of the city describing these symptoms, and I told him I was certain it was a case of acetonuria. He administered large doses of bicarbonate of soda, and by the time I reached the town the child was on the road to recovery, although the urine still showed large quantities of acetone.

Indications for Digitalis in Pneumonia.

By ARTHUR A. HEROLD, M. D., Shreveport, La.

When you shake a tree, whether or not you stir up a hornets' nest depends entirely on the degree of the shaking and the presence or absence of the aforesaid nest therein. Digitalis—old digitalis—employed in the past for almost every disease in the catalog, but entirely discarded of late by a great many practitioners except for cardio-vascular diseases, is about to come into its own. Most of us have a tendency toward therapeutic nihilism, but when we strike a drug which does good for a certain condition we should give it its due. Now, I am going to give the tree a good hard shake, and if I stir up much opposition among you it will be because you are hornets sleeping on your rights in the "digitalis tree."

As to the rationale—I was taught (and doubtless many of you were, too) that the heart is already working so hard to force the blood through a consolidated lobe that we should conserve its energy by the dorsal decubitus, but we should not try to whip it on by the use of such a powerful stimulant as digitalis; of course, if there

were evidences of circulatory weakness, we were permitted to use strychnia, but digitalis should be held in reserve, as it were, *until it is indicated*. I followed this rule, and on retrospection I feel sure that I lost cases from failure of the heart that would not have died had I given digitalis at the proper time and not have waited until "it is indicated," in the usual sense of the term. I admit that it would be foolish to try to drive the blood through the lung if complete stasis existed—that would be on a par with butting one's head up against a stone wall; but let us consider for a moment the pathology of pneumonia (we are dealing, in this paper, with lobar pneumonia, but what applies to it also covers, to a great extent, lobular or broncho-pneumonia). Authorities agree that there is not actual stoppage of the circulation in the part; complete stasis would mean gangrene; to quote Delafield and Prudden: "Although the capillary blood vessels are compressed, they for the most part remain pervious, but thrombosis is not infrequent," and we might add that raising the blood pressure lessens the probability of thrombus formation.

My mind was first diverted from the old line of teaching by an article by Reilly, of New York, in the *Journal A. M. A.*, of Dec. 26 last. About the time that this paper was published I had a patient in the Shreveport Charity Hospital in the second stage of lobar pneumonia; the man stated that he had been sick for only two days—a statement which I learned afterwards, however, to be incorrect; he was well nourished and, on the strength of the scanty history obtainable, I, at the suggestion of a confrere, tried the quinin treatment, with a most disastrous result—the patient died in a few days of circulatory failure; he finally got digitalis, all right; but—the "plaint of ages"—too late.

I shall not burden you with a detailed account of my experience with this drug in pneumonia, but suffice it to say that I have now used it as a routine procedure in seven cases—all with happy results. I realize that my statistics are small, but Reilly has tabulated one hundred and fifty cases, with a mortality of only 3.17 per cent in the lobar variety.

Of my series, one was a case of *apex pneumonia*, in a strumous subject, who was admitted to the hospital in a stupor. Another was a private case, who, on the twelfth day of her puerperium, had

gotten out of bed and gone into a cold rain; when I saw her, two days later, she had an area of extensive consolidation at base of right lung, with moist rales throughout the left; she was semi-delirious, temperature 104, pulse 140, respirations rapid and labored. The principal medication in this case was tr. digitalis mXX and acetate potash grs. XX every four hours at first; when pulse came down in the neighborhood of 100, the dose was cut in two and when it dropped to less than 100 the interval was increased from 4 to 6 hours. This patient was quite weak and had a somewhat tedious convalescence, but there was never any trouble with the cardio-vascular system.

It has been my experience that, as the circulation improves, so do the nervous and mental symptoms. Digitalis, an alkaline diuretic and a saline cathartic, used promptly and judiciously, will promote elimination in every way and thereby lessen the danger from toxemia—thus we might call them the “sheet anchors” in this disease, inasmuch as we know that the principal dangers in pneumonia lie in cardiac weakness (mechanical) and in toxemia. And please don’t forget that digitalis itself is an efficient diuretic.

The most important point which I wish to make is that, given a case of pneumonia with a pulse of over 100, start digitalis right away, the extent of the dose depending on the weakness of the heart’s action; the usual pulse in a robust patient with a typical pneumonia is full, bounding and slow in comparison to the temperature; this is due to nature’s efforts to force the blood through the congested part, and it is our duty to help nature whenever its forces become inefficient; when the heart muscle begins to get too weak to force the blood through properly, its action becomes more rapid, as it is trying to make up in the number of beats what it lacks in the force of them—this is the first call for aid *and should be heeded*. Always remember that it takes digitalis about twelve hours to have much effect on the pulse, and it often requires 24 hours for it to take a “firm hold;” that it prolongs the diastole, thereby giving the coronary arteries a better chance to fill up, and in this way improving the nutrition of the heart muscle and therefore strengthening it and so increasing the force of the contractions while rendering slower its action. If you wait for the well-known signs of beginning dilatation before resorting to the use of this

drug, the organ is going to fail before the digitalis has had time to take effect. It is my belief that those wonderful "cures" which have been reported with aconite or veratrum are cases which get well in spite of the drug rather than on account of it.

In summing up, let me state that digitalis is indicated in every case of pneumonia with a rapid pulse; however, I admit that it, like every other drug, should always be mixed with common sense; but practically and theoretically it is so much better than the expectant plan or the "do nothing" plan that I want to urge this line of treatment on you as being the most rational routine procedure that I know of in this justly dreaded and too fatal affection.

DISCUSSION.

Dr. R. G. HAWKINS, of Palmetto: I would like to ask the Doctor what form of digitalis he uses, whether the tincture, the infusion, or what?

Dr. J. T. HALSEY, of New Orleans: I do not think it makes so much difference whether you use the tincture, the fluid extract or the infusion. But I think it is extremely important that we use a good preparation. I believe that a great many physicians would have a very much better opinion of the therapeutic efficacy of digitalis in pneumonia and in other conditions if they invariably used a preparation where they had some reliable guarantee that the preparation was a good preparation of digitalis. And I know of only one way in which one can secure this reasonable guarantee, and that is by making use of a digitalis preparation which has been physiologically tested. I think that that is of tremendous importance. I have given this advice to various of my friends and colleagues at different times, and they have many of them thanked me for it after a year's experience and stated that they would never use in the future any other but physiologically tested preparations. We can secure physiologically tested preparations through at least three different reliable prominent drug firms. I do not want to be considered as an advertising agent. I can assure you that I have no financial interest in the sale of the preparation. Personally I started in using Parke, Davis's physiologically tested normal liquid digitalis. They now put it up under

the name of the fluid extract, physiologically tested. I have had no reason to change. But I am convinced that several other houses put out just as good a preparation as does Parke, Davis. I wish to emphasize the great difference in digitalis preparations. Tested in the laboratory, they vary as much as one to five; that is, one minim of one preparation will be the equivalent to five minims of another.

Dr. I. I. LEMANN, of New Orleans: I rather think that digitalis is not indicated as a routine measure in the treatment of pneumonia—when we stop to consider that the blood pressure in pneumonia is exceedingly high. If we are going to do anything with the digitalis, we are going to increase the blood pressure. The second point I want to make against it is the very well known fact determined at post mortems in pneumonia, the dilatation of the right ventricle. That occurs because of the tremendous amount of work that it has to contend against. The routine administration of digitalis is simply going to increase that work and therefore increase the chances of dilatation of the right ventricle.

Dr. HEROLD (in closing): I wish to state that my usual rule is simply to write for tincture of digitalis. When I do specify, it is for Squibb's tincture.

As to Dr. Lemann's remarks about high blood pressure: In those cases in which the blood pressure is high, as a rule, if there is nothing wrong with the patient except pneumonia, the pulse is usually slow, and then, as I say, the digitalis is not indicated. He speaks of dilatation of the right ventricle found at autopsy. The Doctor understands the physiological effects better than I do. I mentioned in the paper that digitalis prolonged diastole, thereby giving the coronary arteries a chance to fill up, improving the nutrition of the heart muscle, and therefore strengthening it, and it seems to me that if the right ventricle did dilate in pneumonia digitalis was indicated more than ever, because it prolongs diastole, strengthens the heart and causes more or less hypertrophy.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, *Chairman*.

DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF JUNE 14, 1909.

DISCUSSION OF DR. BASS' PAPER ON PELLAGRA.

DR. VAN WART: A case was admitted to the out-patient clinic of Touro Infirmary about two weeks ago, with the history of having had an eruption on the face and hands and weakness. The history given was that two years before in the spring of the year, the patient, a colored girl, aged 9, had been taken sick with a similar eruption on the face and hands, with weakness and diarrhea; she recovered, but had a similar affection last year in the spring-time; she again recovered. The present attack commenced last fall and has not improved up to the present time. Over the face and hands was marked thickening of the skin, with deep pigmentation; this peeled off, leaving a red surface underneath. This was marked on the backs of the hands, the wrists, neck and face. The child was very weak. The kneejerks and Achilles tendon reflexes were increased. The lips were cracked, and the tongue showed a smooth, glossy surface with laceration of the mucous membranes. After having seen Dr. Bass's case, it became quite clear that this was also a case of pellagra. The patient came from Hahnville. The nervous lesions of pellagra are well described by Babes and Sion. The peripheral nerves show no changes. The spinal cord, according to the observations of Tuczec, shows changes similar to those seen in pernicious anæmia and other toxic states. The brain changes are chiefly atrophy of the cortex, with infiltration of the pericellular spaces with round cells.

DR. GUTHRIE: Through the courtesy of Dr. THOMAS at the Louisiana Hospital for the Insane at Pineville, I had the opportunity of seeing two cases which he has had under observation

for some time and which he has reported in a paper appearing in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL. In both these cases the most prominent symptom was the tongue, which presented a marked degree of desquamative dermatitis.

I feel that we all are under obligation to Dr. BASS for his resume of the literature and the account of these cases.

DR. LEMANN: Dr. Bass' paper is one that I have been expecting to hear for some time. When reports of pellagra became fairly numerous from other Southern States, I feared that it might have been with this disease as it was with hook worm; that is, that we had failed to recognize it. But a number of us with large hospital facilities cannot recall having seen such cases in past years, nor have we seen any since our attention has been strikingly called to them and we have been on the lookout for them.

DR. HALSEY: I recollect Dr. Bass' case, Ainsworth, and in light of present knowledge believe Dr. Bass is correct in considering this case to have been one of pellagra, although we failed to so diagnose it at the time.

DR. BASS: It is rather remarkable that more scientific investigation of the disease has not been made, when it is considered that it is generally claimed it can be produced in a number of experiment animals. The disease chickens have in summer, which prevents the late spring and summer-hatched chickens from feathering after shedding their first down, is said to be pellagra. Most of them fail to grow and finally die. We have under way in the experimental laboratory at the medical college, blood culture, spinal fluid culture, complement fixation and other experiments on this case. I also hope to be able to soon make experiments on animals with cold room, etc., arrangement, to determine whether it is possible to cure or prevent the disease thereby. This patient will be placed in a wintry cold room and spinal injection of normal human serum continued.

DISCUSSION OF DR. ELLIOTT'S PAPER ON TUMOR OF THE BRAIN.

DR. PERKINS: I wish to report a case of cerebral tumor which was diagnosed at post mortem at the hospital. Patient came into a physician's office with slight numbness over ulnar nerve distribution, and some little mental confusion. Was admitted to hospital.

Numbness and motor paralysis progressed until death from inanition and impaired respiration about one month later. The left arm, the whole left side, and finally muscles of deglutition and respiration were successively involved. Post mortem showed spherical gumma about 2 cm. in diameter just under corpora quadrigemina, mainly on right side of mid line.

Dr. VAN WART: Tumors of the frontal lobe are always interesting. Certain cases suffer from epilepsy before the real nature of the disease is known. A case in my service at the Touro Infirmary had been given bromides for five years for supposed epilepsy. Three months before coming under observation he commenced to have trouble in speaking and weakness of the right side of the body. There was no disturbance of the reflexes. He was operated on by Dr. Matas, and a tumor of the posterior end of the second frontal convolution, about one inch below the surface, was found. The patient died shortly after the operation. The tumor was a neuroglioma. Until the appearance of the weakness of the right side and the disturbance in speech, the only symptoms were the convulsions.

The trembling in the left hand mentioned by Dr. Elliott is what is known as "epilepsia partialis." Spiller has recently written on this subject. A point that is not usually appreciated is that gliomata are nearly always fatal and that the forms of syphilitic brain disease that recover are usually the various types of meningitis.

Dr. WALET: While this subject is under discussion, I would like to relate a most interesting case, with the following history: About eight months ago a young man patient appeared at my office, with marked dilatation of pupils, emaciation, constant frontal headache, peculiar or vacant expression, wildly looking at times. I examined him and could elicit no specific history. He looked double at times, and was examined by Dr. Reiss, who stated he was suffering from choked disc. However, I put him on the anti-syphilitic treatment, mercury and the iodide of potash, with marked improvement. I saw him a few times afterwards, and when last seen on the street he seemed to be all right. In this case there must have been pressure, with resulting symptoms.

Dr. VAN WART: If agreeable to the Chair, I would like to make

a few remarks concerning the operability of brain tumors. Only ten per cent of brain tumors are operable; a certain proportion of these operable cases may not be accurately localized. It is to be remembered that the symptoms may result from pressure or from destruction of the brain tissue. In certain tumors which infiltrate there may be at first little disturbance of function. Later, due to hemorrhages or softening of the tumor mass, the uninjured fibers may be broken, producing sudden hemiplegias or paralyses of various types. It is always to be borne in mind that these accident conditions occur quite frequently, particularly in gliomata. It is only the encapsulated tumors that can be successfully removed. The infiltrating tumors, even if removed, are apt to recur.

Dr. DANNA: The paper just read and the discussion so far go to bring out two facts. First, that a tumor may grow to a fatal size before giving definite localizing symptoms, and that an accurate diagnosis is seldom possible; and, second, that surgical intervention is usually thought of only when the patient has gotten so bad that it can be of no avail. And to illustrate these points, I think it might be of interest to the society to mention the following two cases:

The first case was a young woman with a large sarcoma of the lower jaw. After ligating the external carotid artery, I removed the whole left half of the jaw, and when I had finished my patient was in apparently good condition, with good pulse, and I thought I had done a nice operation; when she recovered from anæsthesia, however, she was found to have right hemiplegia, and she never recovered consciousness completely, dying after thirty-six hours. I wanted to know then what I had done to kill her, so an autopsy was done. The arteries had not been unduly traumatized in the ligation and had not, therefore, caused the trouble. On opening the brain, a sarcomatous tumor was found in the anterior half of the left crus cerebri. This had so far given rise to no symptoms, but the additional engorgement of the brain resulting from the anæsthesia had been sufficient to produce hemiplegia and finally death.

The second case was one which was sent to me with a diagnosis of cerebral abscess. With Dr. Hummel's aid, a diagnosis was made of cerebral tumor, involving the cortex about the right motor area.

He had high temperature and rapid pulse, and was semi-comatose. An operation was decided on. An osteoplastic flap turned down the motor area. At this time his temperature was 105, pulse 140.

After opening the dura, no cortical tumor could be found. There was some fluctuation under the motor area, but after blunt dissection as far as I dared nothing was found, and the opening was closed and drained. Patient died next day. Autopsy showed a tumor the size of a lemon in the floor of the lateral ventricle, making upward pressure on the brain above it and thus giving rise to symptoms of motor area disturbance.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Scope of the State Board of Health.

The highly intelligent and satisfactory solution of the question of the pure food inspector in the selection of Dr. Hamilton P. Jones, of New Orleans, points to the intention of the board in doing its duty to the public.

Originally established for purely perfunctory offices in relation to prevalent and occasional diseases, boards of health everywhere have outgrown their primitive status. To-day these public officers have a serious task in guiding sanitation. Not only is the prevention of epidemic diseases a proper function of theirs, but besides this is the opportunity and the obligation to study and consider all factors contributing to the health and life of a community and State.

In some States not only do the recording of vital statistics, the regulation of food products, the control of contagious diseases and the inspection of unhealthy districts fall within the scope of the health bodies, but also they exercise unqualified authority in all matters relating to the practice of medicine and its regulation. The inspection of schools, not only for diseases common here, but also for their proper sanitation, is sometimes within the duties of such boards.

All States must in time reach a plane of common usefulness among their health authorities and power must be created to make this. The time must come, however, when the health of the community must be removed from purely political control and rest rather with a selection guided by mature judgment and pre-judged upon experience and training for those who are to undertake the offices of sanitarians. Schools for such are growing in the larger and abler universities and trained sanitarians may be

made ready for such positions as well as professionally equipped men in other high and technical offices.

With this homily we have no intention of carrying criticism of the incumbents; they are doing their best, and the task is difficult enough without an extra burden of animadversion. We are, however, optimistic, and, in our hopefulness, see the harbinger of advanced civilization beckoning us to a satisfied ideal of civic, State and economic administration in all things sane and healthful.

The Wasserman Reaction.

Now come several reports that the Wasserman reaction has given positive results in cases of leprosy; claims are made, too, that this test is positive in other diseases having nothing in common with syphilis. The organisms of syphilis and leprosy have not yet been classed together, but this report is interesting from the clinical observations made now many years ago by Fitch, of California, who believed and argued that leprosy was a "fourth stage" of syphilis.

The Hansen bacillus has been too often studied and identified to permit any doubt of its relation to leprosy, but speculation may again arise as to whether it is the *causa morbi* or not. Revelations in medical discoveries have brought more than one revolution of ideas, and we sit by and look for new things every day. Syphilis and leprosy both have certain similars and the by effects are often alike. The community response to a laboratory technic, however, may be only accidental and mean nothing—yet we must take notice.

Pellagra in the South.

Fully fifteen cases of pellagra have been reported in Louisiana, either originating in Louisiana or seen by Louisiana physicians. The large occurrence of this disease in Alabama and North Carolina makes it imperative that we should study the conditions under which it prevails. The dietary of the institutions in which this disease has been studied seems to have been at fault, and the care-

ful supervision of this has contributed largely to the control of the disease.

Not every case of pellagra, however, can be traced to a dietary, and the erythema of the skin is often very like a toxic erythema due to intestinal infections or due to coccic intoxication.

The latest theory regarding pellagra points to an organism of animal type, and these recent American outbreaks of a disease almost altogether in the past confined to Italy and France, and in a restricted area, may open the way to investigations among a variant of the Italian disease.

At all events, it is important that all Southern institutions should look out for the disease and report all cases promptly for the sake of the study and prevention of the malady.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

MALIGNANT DEGENERATION. The researches of modern pathologists and gynecologists show that there is a marked tendency for a myoma to become directly transformed into a sarcoma. Winter examined microscopically 500 myomata and found sarcomatous changes in 4 per cent. Martin found sarcomatous degeneration in 6 out of 205, Cullingworth in 1 out of 100, Scharlieb in 6 out of 100, Haultain in 2 out of 120, Hirst in 3 out of 189 and McDowel in 20 out of 1,000 cases. In my own 380 abdominal sections for myoma I found sarcomatous changes in 9 cases. Adding these cases together, we find it occurs in a little over 2 per cent. But this list includes only the sarcomata recognized as originating in myomata. Hence, I think that Winter's figures give the truer proportion, viz., 4 per cent.

There can be no doubt that the subjects of myoma are specially prone to develop cancer of the uterus. It is not a degeneration or transformation of the myoma into cancer, but an associated

lesion. In my own practice I found in 380 operations for myoma 6 cases complicated with cancer (1.6 per cent). Noble, in 4,880 cases he collected, found cancer present in 2.8 per cent, whilst it was present in 4 per cent of the cases he himself had operated on. Of these, 1.4 per cent were cancer of the cervix and 2.6 per cent cancer of the body of the uterus. Now, it must be remembered that cancer of the cervix is ten times more common in women generally than is cancer of the body. If, therefore, cancer occurs twice as often in the body as in the cervix of myomatous uteri, there must be something in myomata which predisposes to the development of corporeal cancer.—C. Martin: "The Dangers and Treatment of Myoma of the Uterus," *The Lancet*, June 6, 1908. MILLER.

GOITRE AND PREGNANCY. H. M. Stowe (*Amer. Journ. Obst.*) states that the prognosis of exophthalmic goitre complicating pregnancy should be guarded. The former mortality of goitre in the non-pregnant state varied from 16.6 (Buschan) to 25 per cent (Charcot). Under modern treatment, both medical and surgical, the mortality averages from 6 to 10 per cent. When associated with pregnancy, we should consider the dangers of abortion, premature separation of the placenta, hemorrhage and the strain on the weakened heart muscle. The rapid development of the disease in the non-pregnant state or the sudden changes for the worse during pregnancy is of grave import. The longer the disease has lasted in a mild form, the better is the outlook for life. A rapid loss of weight and strength, the presence of fever, the early appearance of a systole, and the onset of incessant vomiting and diarrhea are unfavorable signs. The prognosis depends largely upon the condition of the heart, the state of nutrition and the action of the kidneys and intestines. If the pulse can be maintained in the neighborhood of 100 beats per minute and the arterial tension reduced, the patient will frequently gain in weight, and the outlook is favorable. If, in spite of the improvement in the heart, vomiting and diarrhea develop and are associated with fever, mental disturbance and paralysis the prognosis is grave. The fetal mortality is higher than the maternal, because of the danger of abortion and the complications that are apt to occur at the time of labor. MILLER.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF HOUSE OF DELEGATES.

(MAY 4—CONTINUED.)

At this juncture DR. CALLAN took the chair.

DR. LEBEUF submitted the following

REPORT OF COMMITTEE ON MEDICAL EDUCATION OF THE LOUISIANA STATE MEDICAL SOCIETY.

This report is submitted by your committee with a certain amount of diffidence, considering the splendid work performed by its predecessor. Dr. Callan, your previous Chairman for three years, gave a great deal of time to the study of this work and the compiling of each year's report. We are afraid his mantle has fallen on unworthy shoulders, and the very difficulties which have met us from the onset have made us better appreciate the valuable services he has rendered. We feel it proper to pause a minute to attest this. We believe that he has done more to uplift and raise the standard of medical education in this State than any other one man. His annual report, as you all know, has been a distinct feature of our meetings; dry facts and statistics always given clothed with witticisms and personal conciseness of diction that made it a charm and pleasure.

The advance in medical art and teaching has been phenomenal in the last twenty and twenty-five years. When your present Chairman graduated, twenty-two years ago, men were given diplomas which enabled them to offer their professional services to the public after hearing a five months' course of barely twenty weeks—twice repeated. Medical education now is not only an art, as formerly, but with improved methods and advance of medical teaching, has now become a science. And all this has been performed by the united efforts of such efficient committees on education as the previous one, by the enlightened faculties of the schools themselves, by the earnest and disinterested work of the

Boards of Examiners, and, lastly, by the Council on Medical Education of the American Medical Association, so ably presided over by Dr. H. D. Bevan. The greatest good has been reached here through the consistent enforcement of the entrance requirements, the lengthening of the course to a four-year course of full thirty working weeks, of not less than four thousand three hundred class hours in the four years.

Regarding the work of your committee in Louisiana, it is limited still to the examination of Flint Medical College and the medical department of the Tulane University of Louisiana, and we are glad to say that our report this year is quite encouraging, at least in a marked manner, in one of the two colleges. Dr. Bevan, in his address at Chicago, of the Council on Medical Education, said: "Louisiana has two medical colleges, one of which (Tulane) is among the strong schools of the South. The other is a colored school, which is struggling to meet an acceptable position."

Tulane and Flint have both joined with the requirements of a four-year high school course. And Tulane, with its splendid additions of new buildings and laboratories in the new memorial buildings on the upper campus, will be able to keep its promise to reach, in 1910, the further European requirements of thorough training in physics, chemistry and biology.

Allow me to submit a few condensed facts for your consideration. Of the forty-eight best schools, with fifty or more graduates, we see:

Graduates of all years.

		Per cent	
	Graduates.	Failed.	Boards.
Cornell	81	0.0	10
Johns Hopkins	95	2.1	22
College of Physicians and Surgeons, University of Columbia	139	2.9	21
Northwest University, Chicago.....	175	2.9	21
University of Michigan College of Medicine	83	4.8	21
Tulane	103	4.9	8
Harvard	102	4.9	18

Tulane graduates from 1902 to 1907 appeared before six boards; failures, 4.1.

Tulane graduates examined in 1907 and all previous years, five were before four boards; one failure; 20 per cent.

Tulane graduates of 1907 and 1908, before five boards, 3.3 failures.

Graduates of Tulane in 1907, regardless of date of graduation.

Table A.—Tulane.

States.	Passed.	Failed.
Alabama	4	0
California	1	1
Florida	1	0
Louisiana	70	0
Mississippi	8	4
South Carolina	1	0
Texas	13	0
Total	98	5

Failure recorded in California, 1.

Failures recorded in Mississippi, 4.

Before eight boards.

Graduates of Flint in 1907, regardless of date of graduation.

Table A.—Flint.

States.	Passed.	Failed.
Louisiana	11	1
Mississippi	0	9
Texas	0	1
Total (22)	11	11

Percentage of failure, 50. Three boards.

In Louisiana, one State, 8.3 per cent of failures.

In Mississippi and Texas, two States, 100 per cent of failures.

Graduates of 1907 examined in 1907 from Tulane.

Table B.—Tulane.

States.	Passed.	Failed.
Alabama	3	0
Louisiana	67	0
Mississippi	5	3
South Carolina	1	0
Texas	11	0
Total (90)	87	3

Percentage 3.3 failures in five boards.

Graduates of 1907 of Flint examined in 1907.

Table B.—Flint.

States.	Passed.	Failed.
Louisiana	9	0
Mississippi	0	5
Texas	0	1
Total (15)	9	6

Percentage, 40 per cent of failures in three boards.

One, failed in May examination, passed in October.

Graduates from 1902 to 1907, inclusive, examined during 1907.

Table C.—Tulane.

States.	Passed.	Failed.
Alabama	4	0
Georgia	1	0
Louisiana	69	0
Mississippi	6	4
South Carolina	1	0
Texas	13	0

Total (98) 94 4
 Percentage, 4.7 in six boards.

Graduates from 1902 to 1907, inclusive, examined during 1907.

Table C.—Flint.

States.	Passed.	Failed.
Louisiana	11	1
Mississippi	0	9
Texas	0	1

Total (22) 11 11
 Percentage in three boards, 50 per cent failures.

Graduates of 1901 and previous years.

Table D.—Tulane.

States.	Passed.	Failed.
California	0	1
Florida	1	0
Louisiana	1	0
Mississippi	2	0

Total (5) 4 1
 Percentage, 20 per cent in four boards.

Graduates of 1901 and previous years.

Table D.—Flint.

States.	Passed.	Failed.
I. e., no data.....

Flint graduates examined in 1907:

In Louisiana—Twelve applicants; 11 passed, 1 failed. The applicant failing being of class of 1905.

Flint graduates examined in 1908:

Thirteen applicants, 5 failed; one graduate of 1901, one of 1902, two of 1905, one of 1908.

Flint Medical College, with the terrible handicaps against it, should be commended for its consistent attempts at raising its

standard, but it is working against dreadful odds. With an endowment of about \$3,400 only, augmented by the tuition fees of students, estimated at \$2,635, and returns from the pay patients in Sarah Goodrich Infirmary, or hospital, of, say, \$3,000, total approximately of \$9,000—with practically no clinical advantages, a most modest laboratory equipment, no evidence of any teaching of gross pathology except a few post-operative specimens—we do not understand how they even succeed in getting along as well as they do. Besides, there is a woeful lack of conveniences about the building itself; the simplest laws of hygiene are grossly violated at every step. Out of a teaching staff of seventeen (17), seven (7) are not graduates in medicine, and one of these is the professor of physics, chemistry and physiology. Within two years two of its students who did not make up a proper standard and were ordered to repeat their courses went to Meharry College, Walden University, and were promptly accepted and given full credit for the unsuccessful year's work at Flint. One case, viz., the case of J. H. Jackson, has the following status:

In 1906-07 he attended Flint and made the following grades in the Freshman year, *i. e.*, anatomy, 67; histology, 37; chemistry, 50; physics, 0. He was ordered to repeat the Freshman year, but instead was allowed to enter the Sophomore class of session of 1907-08 in Meharry Medical College, Walden University, Nashville, Tenn.

Session standing of J. H. Jackson.

Anatomy	98	Physiology	84
Materia medica.....	86	Botany	89
Mal. analysis.....	89	Toxicology	96
Dissecting	90	Urinalysis	96

C. W. HUBBARD, M. D., *Dean.*

Of course this is an aggravated case, but it is the existence of such cases which we know exist, to the shame of our medical schools, in the wild search of material, which discredits the sacredness of the responsibility of our schools. There are seven colored medical schools in the South, with the following rating in the South:

Howard University Medical Department, Washington, D. C.—Failures 23.6 per cent; students, 186 (18 boards); graduates, 44.

Louisville Medical College, Louisville, Ky.—Failures, 100 per cent; students, 50 (2 boards); graduates, 13.

Flint Medical College, of New Orleans University, New Orleans, La.—Failures, 50 per cent; students, 51 (3 boards); graduates, 9.

Leonard School of Medicine, Raleigh, N. C.—Failures, 34.7 per cent; students, 149 (11 boards); graduates, 24.

Knoxville Medical College, Knoxville, Tenn.—Failures, 80 per

cent; students, 32 (4 boards); graduates, 1. (Not recognized by the Louisiana State Board of Medical Examiners.)

Medical Department of the University of Tennessee, Nashville, Tenn.—Failures, 100 per cent; students, 23 (1 board); graduates, 3.

Meharry Medical College, Walden University, Nashville, Tenn.—Failures, 43.8 per cent; students, 300 (19 boards); graduates, 41.

This makes two colored schools with 100 per cent of failures during 1907, one school with 80 per cent, four schools with over 23.7 per cent.

Now, Flint has improved more than one could expect from its limited means. But to avoid such an experience as that between Meharry and itself and to raise the standard, would it not be better to choose one or two central locations, like Nashville, Atlanta or New Orleans, and concentrate all their means and energies in one or two large well-equipped universities, which, with ample means, would get sufficient hospital advantages and better laboratory equipment, and, in improving its curriculum, would allow it to send forth graduates prepared not only as they are at times in the *letter of the law*, but also fully to the *spirit of all modern requirements*.

Negro education should be encouraged in the higher professions, as the 9,000,000 of that race in the South have a right to have their own people treat them if they so desire it. But they also have the right to expect the best medical education from their physicians. And it is only humane to give it to them and to protect them also in that, as we do in many other ways in the South. Requiring standards of requirement and higher medical education, the Board of Examiners should study them carefully and not only be guided by the pledges and promises of annual catalogues and bulletins.

In Mississippi there should be a joint conference with our boards, as the different standards practiced there certainly seem to work a hardship to both States.

Flint had in session, 1908-09: Number of students, 20; number of graduates, 2; number of teachers, 14; number of weeks per session, 30.

Candidates for admission must present these requirements:

A. Bachelor's degree; or

B. Diploma from accredited high school, normal school or academy; or

C. Examination or equivalent amount of preliminary work of not more than four points.

A. On or after January 1, 1910, all candidates must present a satisfactory evidence of one year's successful work in a college; or

B. Matriculate in five years' course in medicine, the first year of which will be devoted to preparatory work in the fundamental sciences.

We would like to suggest the study of a plan by which an exchange of averages of all students applying for advance studies from one school to another would be made by the deans of the different schools at the request of the dean receiving a student.

On visiting Tulane, we find a marked improvement over the previous session in the addition of buildings, new laboratories and a new dormitory, altogether costing about \$275,110. The laboratories of chemistry pharmacology physiology and pathology, in the two new buildings, are newly fitted in the most scientific manner and able to carry on to-day experimental work of the highest type. The faculty is awake to the great necessity of improving the work of its teaching staff, and has secured the best material possible, here and elsewhere, to raise its standard of work. The associate professors, instructors and demonstrators are now given a voice in the debates of the faculty, all to the great improvement of that body. The teaching facilities have now been augmented at our Charity Hospital by the addition of 120 beds in the opening of the magnificent Delgado Memorial, with up-to-date surgical and gynecological departments.

The Freshman class of this session, 1908-09, to the number of 96, entered with the following credentials:

A. With college degrees.....	24
B. With high school certificates showing 15 or more units...	21
C. With certificates of entrance to standard colleges.....	7
D. Without high school or other diplomas, but on 15 or more units certified by some qualified teacher.....	27
E. Admitted on less than 15 units, but more than 12.....	7
F. Special students	7
G. Partial students	3
Total	96

Special students or students admitted to the Freshman year under 15 units of the requirements must complete their Freshman year without conditions whatsoever in order to be credited with first year's work. If conditioned at all, they must enter the first year in the same class again and fulfill the entrance requirements as if they had never studied in the medical department.

In spite of all the advantages offered by Tulane and the increase of the length of the term, we find the following status:

1. The average cost of the university per student has been	\$175.44
2. Amount contributed per student per current year..	139.75
3. Net cost of the medical department per student, above receipts from each student.....	35.69
4. Meaning a total cost above receipts from students for the current year, multiplied by 483 students working	17,238.27

We wish to specially urge Tulane to give full thirty weeks of session; its course consists at this moment of over thirty weeks, but we believe there should be full thirty teaching weeks, exclusive of the last week of examination and the week and a half at Christmas. The excitement and confusion of examination more or less demoralizes the work of the students and hinders the work to some extent.

The extension course of lectures, so popular this winter, have been a source of great profit to the students, the profession generally, as well as the public, and we trust this will be continued.

(SIGNED.)

COMMITTEE ON MEDICAL EDUCATION,

ISAAC IVAN LEMANN, M. D.

S. W. STAFFORD, M. D.,

G. FARRAR PATTON, M. D.,

LOUIS ABRAMSON, M. D.,

LOUIS GEORGE LEBEUF, M. D., *Ch'm.*

Medical News Items.

MIDSUMMER MEETING OF THE EAST FELICIANA PARISH MEDICAL SOCIETY.—This meeting took place at Clinton on August 4 in the office of Dr. R. P. Jones. This is one of the youngest parish societies in the State, but one of the best. Its last meeting was especially good in point of attendance, as well as in the number and quality of papers presented. Out of the 20 members in the parish, nineteen were present, which speaks well for a country parish, where the doctors have to travel 18 or 20 miles to attend. Dr. Edward S. Hatch was the guest of the society at its last meeting and read an interesting paper on "Backache." He also gave a practical demonstration of the application of adhesive straps to the back. Dr. Young, of Clinton, read a short resume on "Obstetrics," and an extra good paper was read by Dr. James J. Robert, of Norwood. Dr. Charles McVea, President of the Louisiana State Medical Society, was also present and gave the society an informal talk, complimenting them on the full attendance. A case of pellagra was reported by Dr. Thompson, of Slaughter, and one by Dr. B. Singletary, of Wilson. The meeting was followed by a dinner at the Rist House.

THIRTY-FIFTH MEETING OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—This meeting, which is to convene in St. Louis

October 12, 13 and 14 next, gives promise of being an exceptional event in both scientific and medico-legal ways.

THE ABBEVILLE COUNTY MEDICAL SOCIETY held a meeting for the study of pellagra at Abbeville on August 6.

OSTEOPATHY BILL PASSED BEFORE THE ALABAMA LEGISLATURE.—The Alabama Legislature has passed a bill providing for a State Board of Examiners in Osteopathy.

UNDERGRADUATES DENIED.—A wise decision has recently been reached in Alabama prohibiting undergraduates appearing before the Alabama State Board of Medical Examiners.

CONSOLIDATION OF NASHVILLE'S MEDICAL SCHOOLS.—The medical departments of the University of Tennessee and of the University of Nashville have consolidated.

TUBERCULOSIS CAMP IN MISSISSIPPI MADE PERMANENT.—The Board of Trustees of the Mississippi Insane Hospital has decided to make permanent the tuberculosis camp which was established during the latter part of Governor Vardaman's administration.

NEW YORK'S DEATH RATE.—The death rate of New York City is lower this year than it has been since 1860. It is now the same as that of New Orleans.

A NEW PERIODICAL IN LONDON.—*Heart* is the name of a new periodical which recently made its appearance in London. The publication is to be devoted to a study of the circulation, with a view to recording more fully investigations regarding the fluctuations of arterial blood pressure and their relation to health and disease. The first issue contains contributions from Dr. R. Cushny, Dr. James Mackenzie, Dr. Thomas Lewis and Dr. Leonard Hill.

A CORRECTION.—On page 139 of the August issue of THE JOURNAL there appeared, in the report of the Chairman of the Council, a statement to the effect that the Franklin Parish Medical Society was practically disbanded. This was an error, as the Franklin Parish Medical Society is still organized and active.

TREATMENT OF ELEPHANTIASIS.—Passed Assistant Surgeon P. S. Rossiter of the navy (*United States Naval Medical Bulletin, July*) records his experience with Du Broglie's method of treating

elephantiasis by the administration of thirty drops of tincture of chloride of iron three times a day.

CERTIFICATES GRANTED BY LOUISIANA STATE BOARD OF PHARMACY.—Eighteen registered pharmacists and five qualified assistants passed the examinations and have been given certificates by the Louisiana State Board of Pharmacy, which held its session on August 6 and 7.

DR. HODGE'S CASE DECIDED.—The case of the State Board of Medical Examiners against Dr. B. L. Hodge, of Calhoun, in which a temporary injunction was granted restraining him from practicing medicine in the State, was concluded in the District Court this morning. Judge Madison dissolved the injunction, thus giving Dr. Hodge the right to again practice medicine. Dr. Hodge qualified as a physician under the act 1882, but did not under the act of 1894. He had a certificate from the State Board of Health granting him the right to practice medicine, but the State Board of Examiners claimed the Health Board had no right to issue such a certificate.—*Ex.*

PELLAGRA IN THE ILLINOIS INSANE ASYLUM.—Owing to the large number of patients in the Insane Asylum at Illinois suffering from pellagra, Surgeon General Wyman, of the United State Public Health and Marine Hospital Service, has sent Dr. Lavinder to investigate the conditions at that place.

CLIPPINGS.—The Presbyterian Hospital at New Orleans has decided to establish a training school for nurses.

NEW JOURNAL.—The new journal entitled *Epilepsia*, to appear quarterly and published in French, German and English, has just appeared. The journal is devoted entirely to the study of epilepsy and allied conditions. The first number contains an article by Raymond and Serrieux on "The Responsibility and Social Conditions of Epileptics;" an article by Redlich on "Alcohol and Epilepsy;" another by Binswanger on "The Problems and Limits of Epilepsy Investigations," and another by Muskens on "The Prodromal Motor, Sensory and Other Symptoms, and Their Clinical Significance." A large number of abstracts of important articles on epilepsy also appear. The journal is under the direction of Becheterew, Binswanger, Hughlings Jackson, Luciani, Obersteiner and Raymond.

THE AMERICAN PROCTOLOGIC SOCIETY.—This society met in Atlantic City in June and elected the following officers: D. H. Murray, Syracuse, N. Y., President; T. C. Hill, Boston, Vice President; Lewis H. Adler, Jr., Philadelphia, Secretary-Treasurer. The next meeting will be in St. Louis, June 6 and 7, 1910.

ABSENTEES ON VACATION.—Drs. R. Matas, Geo. Dock, E. H. Hummel and L. H. Landry are in Europe—gone to attend the International Medical Congress. Dr. Charles Chassaignac is in the North. Dr. R. Van Wart is in Boston and the East. Dr. C. W. Duval is in Philadelphia. Dr. E. Souchon is in Covington.

PERSONALS.—Dr. C. J. Gremillion has been elected President and Dr. S. B. Staples inspector of the new Alexandria Board of Health.

Dr. John Guiterras, who resigned from the Cuban Health Department, has reconsidered the matter and will remain in charge.

Dr. Hamilton P. Jones has been elected Pure Food Inspector, and Dr. Sidney Porter Medical Inspector.

Dr. Randell Hunt, of Shreveport, sailed for Europe from New Orleans the past month.

Dr. Marion Souchon is visiting the cities North and East.

Dr. A. B. Gaudet is in Philadelphia.

Dr. J. A. Storck is spending his vacation in Colorado.

Dr. John F. Oechsner is spending the hot months in North Carolina.

REMOVALS.—Dr. A. J. Turner, from Bronti, Tex., to Beeville. Dr. Ada S. Kiblinger, from Jackson, La., to New Orleans. Dr. C. B. Marshburn, from Climax, Ga., to Chicora, Fla. Dr. A. J. Himel, from Napoleonville, La., to New Orleans. Dr. P. E. Waddell, from Natchitoches, La., to Alexandria.

MARRIED.—Dr. Ralph Hopkins and Miss Marion Gayle Denegre were quietly married in the presence of the friends of the families at the Church of the Nativity Biloxi, Miss., on Wednesday, August 11, 1909.

DIED.—Dr. Sara H. Stevenson, a noted worker and the founder of the Illinois Training School for Nurses, as well as the first woman ever admitted to membership in the A. M. A., died August 14, in Chicago.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Appendicitis and Other Diseases of the Vermiform Appendix, by HOWARD A. KELLY, Second Edition. J. B. Lippincott Co., Philadelphia and London.

The first edition of this magnificent work appeared in 1905, and was promptly accepted as the most exhaustive contribution that had been offered the profession on this subject. The second edition now appears somewhat reduced in size, since Dr. Kelly has found that a compact résumé, dwelling with especial care on the practical side of the subject, would better meet the daily needs of the great army of general surgeons throughout the country.

The clinical section has been revised and a section on senile appendicitis added by Dr. Walter L. Burrage.

The first striking feature of the work is the magnificent illustrations. Dr. Kelly was among the first to appreciate the value of art as applied in modern medical literature, and has been most fortunate in having the co-operation of Mr. and Mrs. Brödel.

The work as a whole represents the highest type of book-making; the text represents the work of a careful clinician and master surgeon.

MILLER.

Conservative Gynecology and Electro-Therapeutics, by G. BELTON MASSEY, M. D. Sixth Revised Edition. F. A. Davis, Philadelphia, 1909.

Dr. Massey states in the preface that the demand for his book has increased with its age, and that in the revision little has to be modified in the controversial portions of the text. In two notable instances he changes his views as expressed in former editions, viz., the electrical treatment in gonorrheal salpingitis, and his remarks condemning early operative intervention in the presence of doubt as to the malignancy of breast tumors. It is unfortunate to note that Dr. Massey has not changed his views regarding the value of electricity in the treatment of fibroid tumors. No condition of the abdomen now yields more favorable results, immediate and remote, than the surgical treatment of fibroids. In the light of present results few will agree with Dr. Massey's views as to the efficacy of electricity. The chapter on Roentgen Rays and Therapeutics, written by Dr. Herman Grad, adds considerably to the value of the work.

MILLER.

General Surgery—Vol. II. By JOHN B. MURPHY, A. M., M. D., LL. D., and GUSTAVUS P. HEAD, M. D. The Year-Book Publishers, Chicago, 1909.

This volume, part of the series of 1909, is brimful of the latest surgical ideas.

We may at random mention Beck's Bismuth-Vaselin *paste* injection, utilized for both diagnostic and therapeutic purposes. Infection and Contagion occupy a brief but deserved space.

Russ' Magnesite splint is described in full, with its advantages and disadvantages. The article on the even more important question of asepsis and antisepsis is timely and well worth reading.

Matas and Gessner have articles on Aneurisms.

R. Abbe's interesting case of aneurism of the gluteal artery, cured by the Matas method, is related with accompanying instructive illustrations.

De Martel's dural separator, a decided advance in brain surgery, is clearly described and illustrated.

The Fowler-Murphy plan of proctolysis, as a life-saving measure, is given the space it deserves.

Arterio-venous anastomosis looms up in the surgical horizon with a succinct mention of Murphy's case—*i. e.*, anastomosis of the femoral artery into the femoral vein, in a case of specific endarteritis obliterans, in which Murphy used his invaginating artereal clamp. The patient, after operation, was seen by us, and seemed to be doing well.

Add to the above subjects many other important contributions and Murphy's valuable annotations and you have a book that is worth having.

LARUE.

Blood Examinations in Surgical Diagnosis. By IRA S. WILE, M. S., M. D. Surgery Publishing Co., New York, 1909.

This little volume of one hundred and fifty pages is verily a practical exposé of surgical hematology.

Besides the clinical value which, to the practitioner, is foremost, it gives clear insight to the technique so delicate and intricate, of blood examinations.

Hematological results are not taken as infallible guides by the surgeon, but at times they certainly do help him very much in his conclusions, operative or otherwise.

LARUE.

Seven Hundred Surgical Suggestions. By WALTER M. BRICKNER, B. S., M. D., and others. Surgery Publishing Co., New York, 1909.

We received two years ago the Five Hundred Surgical Suggestions by the same authors, and commended it as a condensed reference book. The two hundred additional suggestions in the new edition serve but to enhance its usefulness.

Due credit must be given Drs. Moschowitz, Hays and Fridenburg for their collaborations.

LARUE.

Constipation and Intestinal Obstruction (Obstipation), by SAMUEL GOODWIN GANT, M. D., LL. D. W. B. Saunders Co., Philadelphia.

Dr. Gant emphasizes the importance of a thorough acquaintance with each individual case.

The book contains a considerable formulary. While given due consideration, yet drug therapy is not placed first in importance.

Diet and psychotherapy are assigned to a deservedly high place in the treatment of constipation and obstipation. Also, much value is ascribed to such physical measures as bodily movements, massage, mechanical vibrations and electricity.

While we think the book will prove of most value to the specialist, the general practitioner will find it of considerable worth. It will afford him many suggestions which will prove helpful in the treatment of that large class of patients which it has been his custom to dismiss with a prescription and some scant instruction regarding diet.

Excellent chapters on intestinal operations add much to the completeness of the volume.

This work is important. We say: "Read the book."

STORCK.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR JULY, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	3	8
Intermittent Fever (Malarial Cachexia)	6	3	9
Smallpox.....			
Measles			
Scarlet Fever.....	7		7
Whooping Cough.....	1	2	3
Diphtheria and Croup.....			
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia		1	1
Tuberculosis.....	38	29	67
Cancer.....	22		22
Rheumatism and Gout	2		2
Diabetes		1	1
Alcoholism	2		2
Encephalitis and Meningitis.....	4	3	7
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	14	7	21
Paralysis	2		2
Convulsions of Infants	1	3	4
Other Diseases of Infancy	17	8	25
Tetanus.....	2	3	5
Other Nervous Diseases	4		4
Heart Diseases.....	48	27	75
Bronchitis		5	5
Pneumonia and Broncho-Pneumonia.....	11	14	25
Other Respiratory Diseases.....	7	4	11
Ulcer of Stomach.....	1		1
Other Diseases of the Stomach	6	5	11
Diarrhea, Dysentery and Enteritis.....	33	10	43
Hernia, Intestinal Obstruction.....	3	1	4
Cirrhosis of Liver.....	7	3	10
Other Diseases of the Liver	5	2	7
Simple Peritonitis	2	1	3
Appendicitis.....	3	3	6
Bright's Disease	33	19	52
Other Genito-Urinary Diseases.....	3	3	6
Puerperal Diseases	3	6	9
Senile Debility.....	12	6	18
Suicide	4		4
Injuries.....	20	18	38
All Other Causes.....	27	11	38
TOTAL	356	201	557

Still-born Children—White, 31; colored, 20; total, 51.

Population of City (estimated)—White, 265,000; colored, 97,000; total, 362,000.

Death Rate per 1000 per annum for Month—White, 16.12; colored, 24.86; total, 18.26.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.98
Mean temperature 83.
Total precipitation 4.85 inches.
Prevailing direction of wind, west.

New Orleans Medical and Surgical Journal.

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OCTOBER, 1909.

No. 4

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

A Discussion Concerning the Dietetic Management of Tuberculosis.*

By GEORGE M. NILES, M. D., Atlanta, Ga., Lecturer on Physiology, Atlanta School of Medicine.

Just now this disease is in the limelight, and the various phases of its prophylaxis and treatment as well as its social and economic aspects, are being discussed, not only by the medical profession, but also by the laity, the public press, the pulpit, trained lecturers, and settlement workers.

While tomes of literature on the prophylaxis and therapy are piling up, little has been contributed regarding the specific dietetic management of tuberculosis, many writers simply enjoining a liberal diet up to the digestive capacity of the patient. Some insist on a large content of foods rich in proteid; while others prove, to their satisfaction at least, that a low-proteid ration, by giving the organs of excretion a minimum of work, offers the best solution of the dietetic problem.

* Read before the Chattahoochee Valley Medical and Surgical Association, LaFayette, Alabama, July 14, 1909.

The writer is not a specialist in the treatment of tuberculosis, but, in a practice confined to gastro-enterology, these questions of digestive capacity, caloric requirements, and constructive or retrograde metabolism are frequently presented, so that a survey of this subject would appear profitable.

Embodied in this article are the opinions of a number of physicians whose experience with tuberculosis has been wide, and whose words carry deserved weight.

We may assert as a general proposition that a gain in nutrition during a tubercular process is fairly commensurate with an improvement of the disease, and Osler tersely remarks: "As a healing of a tubercular process is largely dependent upon the state of nutrition, the question of diet becomes of the very first importance."

In the consideration of this branch of the subject, there are many points of interest, for tuberculosis is protean in its manifestations; but, as the lungs are usually the main point of attack, if the dietetic management of a case of *pulmonary* phthisis can be kept well in hand, no great difficulty will be found in meeting the other complications.

The first care is to improve the digestion of those with fair powers in that direction, or, where that function is impaired, to remedy as far as possible the cause.

Drs. Boardman Reed and C. C. Browning, in some recent investigations at the Pottenger Sanitarium, found a considerable percentage of the patients suffering from either gastropnoia, or some degree of splachnoptosis. The writer has found in a large proportion of test meals from tubercular sufferers that the free hydrochloric acid was either absent or much reduced. The conclusions from the above are obvious, for it would be simply asinine to institute a regimen of suralimentation, without first correcting to a certain degree the faulty position or functioning of the organs supposed to transform this volume of food into new tissue.

Granting, therefore, that the foundations for this dietetic structure are intelligently laid, let us endeavor to ascertain the proper average ration before attempting to individualize.

Prof. Fisher's tables show a great divergence in the ration used by a number of authorities. For instance, Werner, at the Roten-Kreutz Sanatorium, insists on a ration of 5500 calories daily,

while the Brompton Chest Hospital, London, is satisfied with 2400. Both these institutions claim good results, but if the patients at the Brompton Hospital get enough, those at the Roten-Kreutz Sanatorium evidently have a large amount of needless elimination forced on them; while if the latter institution does not over-feed its patients, the former must necessarily furnish an inadequate amount of nourishment.

Voit has estimated that it requires daily for a normal active adult weighing about 154 pounds 120 grams of albumin, 50 grams of fat, and 500 grams of carbohydrates. Chittenden and a number of his disciples contend vigorously that the amount estimated by Voit and his school is entirely too high, and that good health and strength may be maintained on considerably less. Between the conclusions of these two able investigators a middle ground is probably the safer.

Admitting that 2700 to 3000 calories are sufficient for a healthy man at work, it is now recognized that in a pulmonary invalid this should be increased to 3500 or 5000 calories, according to the digestive and eliminative capacity, and the effect upon the body weight.

Goodbody, Barswell, and Chapman agree that a diet properly balanced for a tubercular patient should contain about 120 grams of albumin, 140 grams of fat, and 300 grams of carbohydrates.

Prof. Fisher assumes, on the basis of "physiologic economy," that, if sufficient fat is included in the proper selection of food, a ration of 3000 calories daily is sufficient for the average consumptive, which means just enough for an ordinary active man.

Dr. S. G. Bonney, in replying to this, points out that a principle of physiologic economy applying to healthy individuals does not necessarily apply to pulmonary cases, and he further asserts that a choice must be made between a gratifying increase of nutrition with a corresponding enhancement of resisting power, and the risk of a temporary tax upon the physiologic functions.

In the presence of a wasting affection like this, intelligent sur-alimentation is the duty of the medical advisor, and the writer wishes to go on record in the contention that a daily ration containing much less than 120 grams of albumin, while it may be sufficient for many other pathologic conditions, is not sufficient for the average pulmonary invalid.

The beauties of a low-proteid ration in tuberculosis were most charmingly portrayed in a recent paper presented before the International Congress on Tuberculosis at Washington (Kellogg, *Medical Record*, Feb. 13th, '09), but the experience of most practical observers is not in accord with the arguments as set forth.

To bring out the views of several physicians regarding diet in pulmonary tuberculosis, personal letters were written to a few whom the writer considered competent to speak with authority, asking an expression from them as to the ordinarily balanced diet, *i e.*, the proportion of proteid, fat, and carbohydrate as recommended by Goodbody, Barswell and Chapman. Their communications are quoted in part.

Dr. Karl von Ruck, Asheville, N. C.—“Taking, however, cases in which the digestive functions are normal, and presuming the patient to be under weight, we prefer to give carbohydrates and hydrocarbons in excess, and to adopt a low proteid ration.”

“As to the amount of calories per day, in this respect there is quite a good deal of difference in the individual case, and practically we find that it is best to determine the amount of calories required per day under which the patient maintains his weight. The average patient under the ordinary course of management as regards rest and exercise requires from eighteen to twenty calories per kilo per day, and if weight is to be gained of course this would have to be increased. So long as we desire to gain weight the proteids are given sufficiently to maintain a proper nitrogen balance, and as I stated before the carbohydrates and hydrocarbons are given in excess. When a gain in weight is no longer desired, we increase the proteid ration and correspondingly reduce the starches and fats.”

Dr. C. C. Browning, Monrovia, Cal.—“When patients come under treatment I ask them to keep a record of what they are eating, allowing them to choose according to their taste and past experience. From this I attempt to select a well-balanced diet, making suggestions as to whether or not they are taking more than they should of one variety of food, or less of another, and prescribing it in the form which they wish. Too high proteid is, I believe, undesirable, and some work which has been done in our laboratory with indican in the urine as an index has confirmed this belief.”

“Unless there are complications which cause some deviation

from the diet, I believe a well-balanced mixed diet is best, and one which contains from 2500 to 3000 calories per day for the average patient."

Dr. Lewis M. Gaines, Atlanta, Ga.—"In general my best results have been from moderate forced feeding, increasing cautiously both the proteid and carbohydrate content. Intestinal auto-toxemia is the rock of offence in many cases, and special means must be taken to avoid this disaster. Furthermore tolerance for proteids may be cultivated, especially if carbohydrates are judiciously associated with them; and if this much-to-be-desired state of affairs is brought about, the greatest improvement may be expected. I have not measured the diet exactly in calories, nor attempted to do so. Close clinical scrutiny and the use of scales appear to me to make such an observation superfluous in ordinary work, though of course in scientific research, an exact unit of measurement is used with great advantage, and should be invariably employed."

Dr. E. S. Bullock, Silver City, N. M.—"Twenty per cent increase over normal proteid diet. Forced feeding up to limit of digestive capacity in patients much under weight or very ill. To individualize is the most important feature of dietetics. Have used measured diet, but have not found it very practicable."

Drs. George Brown and L. C. Rouglin, Atlanta, Ga.—"A generous diet containing 3500 or more calories per day, with a ten or fifteen per cent. excess of proteid. Patients much under weight are forced up to their digestive capacities with carbohydrates and hydrocarbons. The digestive organs are at all times carefully watched, so as not to over-step the border line of assimilation, thereby adding the complications of intestinal toxemia."

Dr. F. E. Mera, Santa Fe, N. M.—"We do not resort to stuffing, but believe in a generous, well balanced diet. The men would average some in excess of 4000 calories per day, and the women some under that. The proteid element constitutes a little more than a normal diet. Gelatin in the form of various jellies and desserts forms to my mind a very important part of the dietary. Of course we try to individualize in our cases as much as possible in the elements of their diet, as well as in other ways."

In planning the dietary for individuals it is well to bear in mind personal likes and dislikes, and to write out the directions, for they are apt to be forgetful about details which do not appeal

to them. They must be impressed with the importance of diet as an actual therapeutic measure, that not alone what is *desired* is sufficient, but all that can be *assimilated*.

When there is a good appetite and digestion, it is unnecessary to be so scrupulously careful about the balanced ration. When the appetite is impaired, however, or there is a sense of premature satiety—hyperkoria—it must not be forgotten that the powers of digestion are often greatly in excess of appetite, and suralimentation should not be halted for this reason alone.

Not only the tastes must be catered to, but attention to the æsthetics in preparing and serving the food will greatly aid the physician in overcoming the anorexia so frequently present. The active digestive value of this appeal to the psychic element of appetite was recently discussed by the writer. *Aesthetic Alimentation*, *Charlotte Medical Journal*, Apl., 1909.)

Again the meals should not be given immediately after exercise, or during any nervous excitement, but those physiologic and psychic aids, quietude of body and serenity of mind, should be invoked as much as possible.

The value of the assistance rendered by tactful nurses and trained attendants in carrying out suralimentation cannot be overestimated, and for this reason a certain amount of "team work" can be brought to bear in a sanitarium, that is perforce lacking in home treatment.

A careful study of each case will be needed in order to decide the "limit of tolerance," and it is surprising how much more can often be safely cared for by the digestive organs, than the patient at first thinks he can eat.

The physician is not compelled to give iron-clad lists, but he should satisfy himself that the right proportion of proteids, fats, and carbohydrates, as well as a sufficient number of calories are comprised in the daily intake, frequent recourse to the scales being of much help in deciding mooted points.

"Generally speaking, pulmonary invalids should be encouraged to partake of a mixed and unlimited diet, with instructions to use butter and cream freely. No attempt need be made to restrict the character or quantity of the food, unless in accordance with special indications. It is desirable that the invalid should consume lean and fat meats, vegetables of all kinds, farinaceous ar-

ticles of food, fruits, nuts, and generous quantities of milk and eggs." (Bonney.)

In regard to the regulation of meal times, different therapeutists have different opinions, but all agree that it is wise to conform as much as is possible to the previous habits of the patient.

Dr. Flick, as cited in *Modern Medicine*, gets good results with one full meal a day (a generous dinner) and milk (two or three glasses) and two eggs with a little bread, butter, and cereal at breakfast and supper. Lunches of milk and eggs are also used, but nothing is given for four hours before dinner. In all, three quarts of milk and six eggs is the daily allowance.

Dr. Lawrason Brown recommends the following dietary: "A glass of milk may be given before rising, which may be hot if desired and contain a teaspoonful of whiskey if the cough is severe and distressing. Beef juice may replace the milk. Breakfast served at 8 a. m. should consist of fruit, cereal and cream or butter, eggs, steak or chops, with a little broiled bacon, bread and considerable butter, one or two glasses of milk, and a cup of tea or coffee. If deemed advisable a glass of milk or a raw egg should be taken at 10 to 10:30 a. m. Dinner at 1 p. m. should consist of soup, or tasty bouillon or broth, fish or oysters, rare roast beef, mutton, turkey, chicken, and occasionally for a change, if desired, ham, pork, duck, or a little goose; fresh vegetables in abundance and variety; salads with an oil dressing, puddings, jellies, ice-cream, or simple cake. One or two glasses of milk may be taken at the end of the meal and bread and butter in abundance. A small cup of coffee is permissible. All sauces should be prepared with good butter. When prescribed a glass of milk or an egg may be taken at 3:30 p. m. Supper at 6 to 7 p. m. should include cold roast beef, mutton, chicken, occasionally ham, or eggs; a hot meat with vegetables is often very agreeable; bread, butter, tea, cocoa, milk (one or two glasses), jam or fruit (fresh or preserved). A glass of milk at bedtime and another during the night if awake may be given in some cases."

In acute cases it may be necessary to serve the meals in the bedroom or on the veranda, but, whenever possible, the patient should be encouraged to come to the table, in order to gain the benefit of pleasant companionship and congenial society.

Touching the use of alcohol, there are widely divergent views,

some of the authorities in mind leaning more to the polemical than the strictly scientific. This much, in the opinion of the writer, may be laid down as admissible: Alcohol in any form should be given sparingly, and only when clearly indicated. It should not be used as a cardiac or general stimulant except in the old. If allowed too freely it increases arterial tension, adds to the liability to hemorrhage, predisposes to anorexia, and often gives the patient that depressed sensation of "the morning after." A small cocktail taken before the principal meal of the day, or a little beer or ale or dry wine taken with the meals, may prove of some use as appetizers, but the physician should be exceedingly chary about including any of these stimulants in the daily bill of fare.

Certain important modifications obtain in the presence of high temperature or disturbances of the kidney function. It may be stated generally that suralimentation is inadvisable in the presence of a temperature of 102° F. Liquid or semi-liquid nourishment will best serve, until, by appropriate measures, the fever is abated. It is feasible, however, to sometimes give one fairly generous meal during a remission of the fever. Some clinicians contend that forced feeding, by improving the general nutrition, will in itself greatly reduce the fever, and do not consider a temperature of 101° or 102° F. a contra-indication. With this contention the writer is not in accord, though willing to admit that, *pari passu*, the pulmonary invalid can assimilate more readily with a high temperature than in other febrile conditions.

Severe disturbances of kidney function in tuberculosis demand practically the same dietetic precautions as in other diseases, and an excess of indican in the urine should always be heeded.

Lastly, it is well to consider at all times the nervous element which so often predominates. This will constantly require the kindly, sympathetic, and often firm, care of the medical attendant, and all of his assistants. Mental depression, discouragement, or nostalgia are foes to improvement, and are sometimes the most difficult symptoms to control.

This discussion could easily be expanded, and many of the aspects of this interesting subject could be dilated on extensively, but the writer has earnestly attempted to condense within as brief a space as practicable, and without undue detail, the basic principles of the dietetic management of tuberculosis.

Remarks on *Pneumococcus Empyema*.*

By JOHN F. OECHSNER, M. D., New Orleans.

The prognosis of the pneumococcus empyema, when early recognized and properly treated, is almost invariably favorable. There should be no mortality from the condition itself, but death should be due rather to those occasional surgical accidents which we encounter in the general surgical practice, or from exhaustion and sepsis in unrecognized or neglected cases. Our experience enables us to divide these cases into two groups—early and late. The pictures of these two groups show a marked contrast. In the one there is less operative shock, a shorter drainage period, shorter hospital residence and a more rapid convalescence and restoration to health. But as another evidence of the remarkable recuperative powers of the child, it is striking to note the gradual, though positive, recovery in those cases where pus has been present in the chest probably a few months. In a series of 23 cases we had two deaths, one a colored child 18 months old, with the initial pneumonia two and one-half months before. Very anemic, emaciated and decidedly septic. The second case, a child two years old, with its pneumonia occurring over two months before operation. Incisions had previously been made in the chest, with the almost invariable result that they closed. This second case was one of bilateral empyema.

With the prognosis, therefore, so generally favorable, it is the early diagnosis and proper surgical treatment that establish this fact. While our experience in a limited number of cases corresponded to that of those authorities who claim that the physical signs of a pus accumulation in the child are hard to elicit, still in the greater number of cases the classical signs of an extra-pulmonary mass were comparatively easily demonstrated upon close examination. Again, most of our children were over two years old, in whom it is easier to get the classical physical signs than in infants. The larger number are between five and ten years of age. In this connection statistics of Bovaird become extremely interesting. Of 69 fatal cases of empyema occurring in children under two years of age, 11 occurred in children under six months, 40 between six months and one year, and 18 between one

* Read before the Orleans Parish Medical Society, June 28, 1909.

and two years. The youngest patient was two months and nineteen days old. This teaches us that many infants, supposedly dying of a pneumonia, very probably die from the resulting empyema. We should, therefore, be extra cautious in seeking to clear up an unusually prolonged pneumonia. In our Southern country where formerly considerable malaria was encountered we were prone to regard this as a complicating factor; to-day the microscope permits of no doubt. The majority of pneumonias, particularly those of the lobar variety, terminate by crisis. After this has occurred, and there is another rise of temperature, unless we can determine further pneumonic consolidation, in the same or other lung, we should presume very strongly that there has been an invasion of the pleural cavity. Exploratory puncture, aside from direct surgical invasion, offers the only positive means of determining the presence of pus. A long, sharp-pointed needle should be used and exploratory aspiration repeated, if pus be not found at the first puncture. While too frequent puncture should be deprecated, it was necessary in one of our cases to puncture five times at one sitting before pus was found. This was in the other side of the chest of a patient operated on two days previously for a left-sided accumulation, and was justified in this particular patient. As a rule, it is better to do repeated punctures at subsequent sittings. In summarizing, it might be well to throw out the broad suggestion that empyema, as a not infrequent complication of pneumonia, should always be borne in mind, and any case running an abnormal course, even in the absence of a group of classical symptoms, should be given the benefit of aseptic exploratory puncture. There is very little danger in the procedure, and it often clears up an obscure and mystifying condition.

TREATMENT.—Pus in the chest, like a diseased appendix, must be removed; we are all agreed on that point. The only question is, How should it be removed—whether by aspiration, intercostal incision or rib resection? Aspiration, which was formerly practiced, has given way to freer evacuation. In submitting our protest against intercostal incision, we have but to say that in a number of our cases this had been done sometime previous to more radical operation; in all, the incisions had closed and rib resection became necessary. In only one of our cases was an incision in an intercostal space practiced. This case was marked by a tardier con-

valescence and the infliction of much pain in keeping the incision open. Rib resection in this case was not practiced on account of the urgency for operation, an extremely large accumulation and much shock. In our last case, intercostal incision had been practiced about two weeks before we saw him, and over one pint of pus evacuated; at the time of observation the pus had reaccumulated to such an extent as to push the heart over to the right of the sternum. Rib resection, in our experience, has absolutely nothing against it. It does not add materially to the shock, and can be done quite rapidly. One and one-half to two inches of rib should be removed, and we prefer the post-axillary, or even scapular line, as this favors drainage during the first few days, while the little patient is confined to bed and when drainage is most important. Rubber drainage should be used, never gauze, as it becomes saturated, plugs the opening and defeats its very object. Irrigation is not practiced. There is no need for it; if the opening be large enough, the pus practically drops out. Irrigation has been known to do harm, several sudden deaths being attributed to it. The dressings are changed frequently, several times the first and second days, and daily thereafter. The little patients are allowed to get out of bed as soon as possible, usually on the third or fourth day.

A Case of Purpura Rheumatica, with Angioneurotic Edema and Visceral Crises.*

By ISAAC IVAN LEMANN, M. D., New Orleans.

Osler has discussed the relationship of the various forms of the erythema group of skin diseases and has contended that the varying lesions of purpura, erythema, angioneurotic edema, urticaria, as well as visceral symptoms, occurring at various times in the same patient, were manifestations of one and the same cause. He has reported in the course of nine years (1895 to 1904), in three papers (1), (2), (3), a series of twenty-nine cases, in which, as he remarks, he has been accused of "jumbling together a motley group of cases, some of purpura, some of angioneurotic edema, others of peliosis rheumatica, others again of exudative erythema."

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In individual cases, various lesions occurred so that in one attack the disease could be called Henoch's purpura, in another a multi-form erythema, in a third simple purpura, in a fourth angioneurotic edema."

The case I am about to report is of interest, because within a short space of a few weeks, it has presented the picture of angioneurotic edema, peliosis rheumatica and Henoch's purpura, and for brief fleeting periods the angioneurotic edema, purpura, the arthritic pains and abdominal pains were present at the same time.

A search of the literature since Osler's last series in 1904 has shown but two reported cases similar to the present one (4), (5).

Pratt, in Osler's *Modern Medicine*, gives the following figures as to the frequency of primary purpura (purpura idiopathica): Massachusetts General Hospital, 65 cases purpura idiopathica in 155,884 patients (in 33 years).

John Hopkins Hospital, 41 cases purpura idiopathica in 18,594 patients.

Hamburg General Hospital, 73 cases purpura idiopathica in 100,000 patients (in 43 years).

Mary Magdalene Hospital, 13 cases purpura idiopathica in 84,000 patients.

London Hospital, 200 cases purpura idiopathica in 63,834 patients.

Pratt also presents a series of 194 of purpura idiopathica representing the analysis of the records of the Johns Hopkins Hospital for 18 years and the Massachusetts General Hospital for 34 years. Of these 194, 54 were purpura simplex plus arthritic symptoms (peliosis rheumatica, Schonlein's disease); of the 54 nearly 20% showed the combination of urticaria or angioneurotic edema. Thus only ten patients out of nearly 200,000 showed this particular combination. My case has added interest, in that it showed in addition to this combination also the visceral crises of Henoch's purpura.

Report of case:

Mrs. H. L., white, 51 years, native of New Orleans. Was admitted to the Touro Infirmary May 21, 1909. Complaint on admission, pains in joints and abdomen.

Family History. Father died at 68 years, of tuberculosis; mother died at 78, of apoplexy; one sister died insane; no one

in family, ascending or descending, has had angioneurotic edema; her children are nervous.

Previous History: No attacks similar to present; no acute illness; no fever, no asthma, no rheumatism. Four children; no miscarriages. Youngest child 16 years old. One child died at six weeks of a congenital cold. Menopause six years ago.

Present illness began six weeks prior to admission. Suddenly, upon returning from a visit, she noticed that her ankles were swollen. They were extremely painful and it was necessary to cut the shoes off. When the swelling passed off, pink spots remained. Then the face became so swollen that the eyes were closed. Next the hands were swollen. At one time she vomited every ten minutes for thirty-six hours. Stools were bloody and frequent for thirty-six hours. At one time urine was bloody for one day. She had no fever that she knew of.

Physical Examination: Well nourished. No edema. On legs are reddish and brown macules from ankles to half way up the thighs. Tongue narrow and furred. Breath has a peculiar garlicky odor. Teeth; no upper teeth, few stumps on lower jaw. Mucous membranes normal. Heart: No visible apex beat. Dullness from right sternal border to one inch outside the left mid clavicular line at fifth intercostal space. Second aortic sound slightly accentuated.

Liver: From sixth rib to costal margin in mammillary line. Not palpable.

Spleen: Not palpable.

Abdomen, flaccid. No tenderness.

Lungs: Resonant note everywhere. Normal respiratory sounds. No rales.

Urine: (May 22) Sp. gravity 1030. No albumin, no sugar. Many epithelial cells. Bacteria.

May 23, 1909. Painful swelling in front of the right ear over maxillary point. Similar swelling over left condyle of jaw, also over left temporal bone (Squamous portion), one-half inch above left ear.

Complains of painful points scattered over head, but these are not palpable. Patient also says she has had painful swelling on the left arm.

May 25, 1909. Patient complains of a severe pain in abdomen,

which she says is similar to the pain she had in the head yesterday.

No points of tenderness. Abdomen flaccid.

May 26. Leucocytes 8150

June 4. Urine Sp. gravity 1020. No abnormalities.

June 6. Blood examination; hemoglobin 75%; red blood cells 4,216,000.

June 8. No plasmodia; polymorphonuclears 66; lymphocytes 33; eosinophiles.

June 9. Complains of pains along left costal arch at costal cartilages of the 8th and 9th rib. Under mamma in 7th intercostal space are two red spots $\frac{3}{4}$ inch long by $\frac{3}{8}$ inch wide, $1\frac{1}{2}$ inches apart. One just inside, the other just outside the mammillary line. Inner one painful on pressure, outer one not so painful. Greatest pain is along the costal arch, and in this region, there seems to be some subcutaneous swellings. Lungs clear. Red macules on buttocks.

June 11th, 1909. In gluteal region over sacro sciatic notch, is a group of grape-colored spots, varying in size from $\frac{1}{4}$ to $\frac{1}{2}$ by $1\frac{1}{2}$ inches. Down the thigh on a posterior aspect, on a level with the great trochanter, is a large, irregular longitudinal blotch same color 5 by $2\frac{1}{2}$.

June 16, 1909. Purpuric blotches have disappeared, having at first turned brown.

June 17, Over the left buttock is a small patch of red blotches similar in character to those previously seen. Patient has had no edema or swelling for some time. Small groups of blotches over left knee.

June 18, 1909. Edematous swelling on left forearm, pain and stiffness of finger joints last night.

June 19. Urine: Sp. gravity 1010; few hyaline casts.

June 20. Urine: Sp. gravity 1010; few hyaline casts.

June 21. Complains of pain in ankles, which are slightly swollen this evening. Puffiness over arch of foot. Two new purpuric spots on external surface of left leg. Spots $\frac{1}{2}$ by $\frac{1}{4}$ inch.

June 24. Has slight bloody vaginal discharge. Edematous spot on left instep.

June 27. Urine: Nothing abnormal found. The temperature has ranged from 98° to 101° The pulse from 70 to 100. Respira-

tion 20 to 24. The patient is now feeling perfectly well and is up and about.

REMARKS: The etiology of this case, as of all the diseases of this group, is a mystery. It probably lies in some disturbance of metabolism. It might very well be that it is not always the same factor at fault in all cases. The cause is probably not an infection. Blood cultures have given no definite explanation. Pratt says that there is usually a slight leucocytosis in Henoch's purpura, usually below 14,000. In my case there was no marked leucocytosis (8,000 leucocytes). The visceral manifestations may be due to processes in the internal organs similar to those seen in the skin. Osler attributes, for instance, the colic to localized edema of the intestinal wall. The present case had not only abdominal pain, but also hematuria, bloody stools, and bloody discharge from the vagina. The fact that all of the various phenomena of purpura, angioneurotic edema, joint and organ involvement occurred practically synchronously brings stronger evidence than any previously reported case has done in favor of Osler's contention, that one cause underlies them all. The usual relationship of this disease to chronic organic disease of the kidney is maintained in the present case.

THERAPY: Everything from intestinal antiseptics to ferruginous and arsenic tonics has been recommended. Calcium salts (*e. g.*, calcium lactate) have been used with the idea of preventing the hemorrhages. In angioneurotic edema nitroglycerin and camphor have been used. Osler emphasizes the need of a careful diet as a prophylactic against the establishment of a nephritis. The present case has at first had small doses of calomel gr. $\frac{1}{8}$ three times daily and later a bitter tonic and calcium lactate.

Prognosis is usually good as regards life. Relapses are frequent. That the condition is not without danger is shown by the fact that Osler's series of twenty-nine cases shows a mortality of 24.

REFERENCES.

1. Osler: *Am. Journal Med. Sciences*, 1895, cx., 629.
2. Osler's *Jacobi Festschrift*, 1900.
3. Osler: *Amer. Journal Med. Science*, 1904, cxxvii., 1.
4. B. P. Rosenberry: *Journal American Medical Assn.*, 1, 2137.
5. A. Don: *Practitioner*, June, 1908.
6. Osler's *Modern Medicine*.

Report of a Case of Pellagra.*

By ROY M. VAN WART, M. D., C. M., New Orleans.

The occurrence of pellagra in the Southern States has recently attracted considerable attention. Numerous cases have been reported in South Carolina, Florida, Georgia, and recently from Mississippi by Dr. Bass. Cases have occurred in Louisiana, and the writer, at the last meeting of the society, mentioned a case from Hahnville. The present case is the first one that has been published as occurring in this city.

The patient, a white female, aged 42, married, was admitted to Ward 53 of the Charity Hospital on the 23 of June. She gave as her occupation that she had charge of a boarding house. She complained of attacks of diarrhea, of general weakness, of numbness in the toes, and an eruption on the hands.

The patient's father died at the age of 74 of tuberculosis of the lungs; her mother is living, aged 69, in good health. She has 2 brothers, both living and well; one sister died of pulmonary tuberculosis. There is no history of rheumatism or nervous trouble in the family; one grandfather and a maternal aunt died of cancer.

The patient was born in Louisville, Ky., and spent most of the early part of her life in Kansas City, afterwards moving to Chicago. She has been in New Orleans for the last 18 years. She has not been out of the city for six years. She has been accustomed, for the last 5 or 6 years, to drink considerable quantities of whiskey wine, and beer; she states that she has taken none for the last 4 weeks. She married in 1883, and has 2 children, both living and well. She has had no miscarriages. She had yellow fever and typhoid in 1897. There was no history of any other infectious disease. She was operated on 5 years ago for hemorrhoids and some internal trouble the nature of which she does not know.

The patient was taken sick in January of the present year with an attack of severe diarrhea and cramps at the same time, she commenced to have pains in her feet and cramps in her legs and a sensation as if her toes were dropping off. This attack of diarrhea persisted for two months, at times getting a little better, but confining her to bed. During all this time, she continued

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drinking. She was then able to get up and go around the house until five weeks before admission, when she again had an attack of diarrhea; this confined her to bed for a week. About this time, the eruption appeared on the backs of her hands; she suffered a great deal from cramps in the legs and arms; the numbness in the feet, which had continued since January, became worse. She was then able to get up and go around for three weeks, when she was again forced to go to bed with diarrhea. Except during the time she had the diarrhea, she did not lose weight and she stated that, had it not been for this, she would have been able to keep up and go around the house. She did not stop the use of alcohol until four weeks before admission. The skin eruption on the backs of the hands and forearms was first noticed as a slightly brownish pigmentation; this soon became bright red and much thickened. The color again became brownish and the skin peeled off in large flakes. The skin burned her as if it had been dipped in lye. Her mouth was sore a number of times. This was attributed to calomel which she had taken for the diarrhea. She had not noticed the skin eruption on the elbows until her attention was called to it. Careful questioning failed to reveal any history of having eaten corn-meal. The patient went so far as to deny that she used cereals in any form except very occasionally.

The patient is a well nourished adult female; the mucous membranes are rather pale; the skin over the face and upper chest is bright red in color; there has been no temperature or pulse disturbance since admission. The heart and circulatory system show nothing of note; examination of the abdomen was negative; examination of the chest showed nothing; there were no palpable lymph glands. The skin over the backs of the hands, a band around the wrist and along the radial side of the forearm to a point 10 c. m. below the elbow showed the following changes: the skin was much thickened, cracked, and of a dirty brown color. In places where it had peeled off, it had left a reddish, slightly weeping surface; it is fairly sharply outlined, fading into the normal skin. Where the skin peeled off, there were occasionally a few bleeding points; the distribution was practically symmetrical on the two sides. Over the olecranon, there was a similar area about 1 inch in diameter; there were no changes in the skin of the abdomen nor of the feet. Dr. Feingold reports the fundus of

both eyes normal. There was no evidence of any disturbance of the cranial nerves. The reflexes showed the following changes: the knee jerks and achilles tendon reflexes were absent; the plantar reflex was present and active; the abdominal reflexes were active; the reflexes of the upper extremities were all present and active. The pupils responded to light rather sluggishly and to accommodation; the myotatic irritability was increased; in the upper extremities, reflexes could be obtained by tapping both the flexor and extensor tendons of the fingers. Sensation showed the following characteristics: there was no disturbance of the temperature sense; tactile sensation was present in both arms and practically equal on the two sides. In the lower extremities, it was somewhat diminished in the toes but present in all other parts; it was perhaps slightly delayed; the tuning fork sensation was diminished below the knee and absent below the ankle; the sense of pressure was present everywhere except in the toes; the sense of position was everywhere normal; pain sensation, except for a diminution in the toes, was normal; the capability of localizing two points was diminished all over the body; the patient felt the points, when separated at a distance of 15 c. m., as one point; it was evident that this was due to the mental dulness, as the two points, when placed on two different fingers or the fingers of the two hands, were felt as one point. The capability of localizing two different points about the face and body was similar. The patient was slow to perceive any form of sensation and slow to carry out instructions; and a request had to be repeated a number of times to enable her to understand it. The motor power was diminished all over the body, but it could not be said that the muscles of the forearm were any more involved than those of the arm, nor that those of the calf were any more involved than those of the thigh. The muscles and nerve trunks were more sensitive to pressure than normal, but equally so. Dynamometer test showed that, whereas the grip at first registered 10 k. g., this could easily, by successive efforts, be raised to 25. There was a general muscular atrophy such as one usually sees in some systemic disturbance. The patient was dull and apathetic; she slept a good deal of the time, but when roused seemed to be bright and in good spirits. Examination of the psychic functions, however, showed a deficiency in memory, as shown by her inability to remember seven letters and seven figures correctly. She

stated that she failed to remember names even after they had been repeated a number of times; her calculation was very deficient, continuous subtraction of 7 from 100 was seemingly impossible, as, after 10 minutes, she stated that she had figured out that 7 from 100 left 93. She stated that formerly she was accurate at figures. She presented no disturbances when asked to repeat test phrases; her perception was only fair; her insight into her condition was somewhat impaired; she allowed lumbar puncture to be performed without asking any questions concerning it. Dr. Menage was kind enough to examine the skin lesions and he states that they are those seen in pellagra. Examinations of the electrical reactions showed the faradic reactions present in all the muscle groups and equal on the two sides; the galvanic reactions were present, and the negative pole gave a stronger contraction than the positive.

This case, presenting all the symptoms of pellagra but without the history of having eaten corn-bread, raises a very interesting question. It has been recognized for many years past that there was a group of cases with all the symptoms of pellagra, in which the history of having eaten corn-meal was absent. In the province of Badojaz, in Spain, where corn-meal is not used, cases with all the symptoms of pellagra have been described. Similarly, in Italy and in France, sporadic cases have occurred. In Egypt, Sandwith has also recognized this group of cases, but objected to the term "pseudo-pellagra," which had been applied to them, stating that they are, in his opinion, true cases of pellagra. In France, while Dejerine considers his case to have been one of true pellagra, most writers consider them to be true cases of alcoholic neuritis. It seems strange, however, that these cases have only been known to occur in countries where pellagra also exists. It seems probable from a study of cases in the literature on the subject with an extensive observation of alcoholic neuritis, that these cases are cases of pellagra complicated with the action of alcohol, rather than cases in which the alcohol alone has been the etiological factor. In a somewhat extensive experience during the last six years in alcoholic neuritis, lesions of the character presented in this case have not been seen. Again, the symptoms presented by this patient are by no means typical of alcoholic neuritis; the sensory disturbances are not at all marked and cannot be considered to be at all extensive. Those which do occur are mentioned as being quite common in cases

of pellagra—dead toes and only diminished sensation, not absence of sensation, being rather more characteristic of pellagra than of alcoholic neuritis. Again, it would be very unusual to find a patient, continuing the use of alcohol over a period of months after the onset of the disease, after two months' confinement to bed, able to get up and walk around. Alcoholic neuritis is a disease which is usually progressive and does not improve spontaneously while alcohol is still being used. Again, the appearance of the patient does not suggest that of one who had suffered from a severe alcoholic neuritis for a period of over five months. Dr. Bass saw the case with me and was of the opinion that it was one of pellagra; and my observation of two of the cases which he reported at the last meeting of the Society leads me to feel that the skin lesion is practically typical of that condition.

Remak and Flatau (Neuritis and Polyneuritis) make no mention of skin lesions similar to those seen in pellagra. In the same work, describing the skin disturbances in neuritis, mention is made of a glossy skin, ichthyosis, and edema of the skin; also of the so-called "neuritic smooth-hand." In none of the cases of neuritis observed, due either to alcohol or arsenic, have skin disturbances occurred resembling those seen in the case reported. The number of cases of ichthyosis which come very close to this description is very few and the descriptions given do not at all correspond to the skin lesions in this particular case. Again, the etiology given in most cases is very different from that in this particular instance. The cases described are mostly cases of injury and have been unilateral and also have been accompanied by marked sensory disturbances, which this case fails to show. Oppenheim makes no mention of skin disturbances beyond glossy skin and edema. The absence of knee jerks might be considered evidence of an alcoholic neuritis, but Sandwith in the examination of a number of cases found the knee jerks normal in 3; slightly exaggerated in 45; very brisk in 70; feeble in 15; absent in 23. The mental symptoms, if one considers melancholia essential, were not characteristic; but, if the observations of Marie are to be accepted, this could not be considered as evidence against pellagra. In this connection, Marie states that it is not easy to describe the psychopathic symptoms of pellagra as they are often accompanied by accidental complications. He states that the mental symptoms of the early stage are seen equally

in alcoholics and those suffering from dementia paralytica, and that it is only later that the more characteristic symptoms appear. In regard to alcohol, Marie states that it is difficult to estimate its importance in pellagra; just as many patients suffering from general paralysis use alcohol as a result of the disease; so, the same thing may occur in pellagra. He makes the observation that small quantities of alcohol act in a way to cause the more rapid development of the symptoms in those exposed to the disease. The whole question of the etiology of pellagra is of very great interest.

This case is reported at length with the examination of the nervous system, as the patient had not, as far as could be ascertained, used any corn-meal and yet showed the typical symptoms of the disease. The only other possible diagnosis, that of alcoholic neuritis, seems to be untenable as the symptoms presented do not occur in this disorder and the typical symptoms of alcoholic neuritis are absent.

Emergency Operation in the Country.

By L. D. McGEHEE, M. D., Hammond, La.

During the month of November there were several cases of diphtheria in the town of Hammond. On the 9th instant, I was asked by the family physician to meet him in consultation for a case that he considered in a dangerous condition from follicular tonsilitis. The anxious parents who appreciated the danger called a third doctor who entered the room with us. We found a child 27 months old with a diphtheritic deposit on both tonsils, in fact covering the throat and obstructing the respiratory passage so that breathing was very difficult, pulse very fast and the patient was cyanosed and unconscious. The family physician gave the history of having seen the child for the past three days. No membrane appeared until the day previous. We at once determined to use anti-toxin, and began to stimulate the child. I was left to watch the child while one of the physicians went for the antitoxin. Before they returned most alarming symptoms presented themselves. The child seemed to be dying. Respiration had ceased, though the heart still beat with considerable force. I explained hastily to the distracted parents that the only chance was to allow

me to perform tracheotomy at once. The only positive assurance that I could give them was that it would not disfigure the corpse. The mother was persistent in denying the child its only chance, saying "You shall not cut my dead child." Several valuable minutes were lost in trying to get her consent. Having obtained the father's consent, the mother was asked to leave the room. Feeling ashamed of my own 50 cents dull pocket knife, I asked the father to lend me his, but he said that I should not operate if I did not have the proper instruments, and caught my hand. I lost much precious time in this confusion, it seemed that operating now was folly, for the poor little thing had stopped trying to breathe and from all appearances was dead. I folded a pillow under the neck and proceeded and made an incision with my old pocket knife about the usual length, because the heart still beat, but could not open the trachea, so I doubled the length of the incision and pulled the trachea through, cut two rings and tried to hold it open by turning the blade of the knife, hoping the child would try to breathe again, but it would not. I then asked the father to lend me his pipe as I wanted the stem, and he said he did not smoke. I thought a lot about the man who did not smoke, for I needed the stem as a tracheotomy tube. On the table across the room was my hypodermic case with some tubes by it. I hastily emptied one of these tubes and with my knife broke the bottom off the tube and inserted the smooth end in this incision in the trachea and proceeded to practice artificial respiration. Just then the other doctors returned with the serum and assisted me for some minutes to keep up artificial respiration. It seemed a long time before we saw some bubbles of blood coming through the tube. The child then inflated its lungs and tried to sneeze, and a fervent "thank God" came from both doctors. Gradually her color came back and she recognized her mother who was turned into a most happy mother after being one of the most wretched. The doctor went after a tracheotomy tube which was put in position and worn one week. In the meantime, together with anti-toxin, stimulants, nourishment the child made an uneventful recovery. She bears a mark on her neck that a specialist would not boast of having made, but the fact that she lives is a great satisfaction to the physician and joy to the parents.

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Goitre.

By GEORGE DOCK, M. D., New Orleans.

Changes in our knowledge of goitre, and especially improved methods of treatment, make it a fitting topic for consideration. Under the term goitre we include all chronic enlargements of the thyroid gland. In every case we have to try to ascertain the particular kind, since the same external form may conceal any one of a number varying much in danger and of great difference in a therapeutic way.

Goitres may be endemic, epidemic or sporadic. The sporadic cases occur in all parts of the world, but usually only in small numbers in any place. Endemic goitre occurs in areas that are rather sharply circumscribed, though sometimes of great extent, such as the Alpine parts of Switzerland, Austria and Italy, and the region of the Great Lakes and valleys of the St. Lawrence river. Such districts are often mountainous, considerably elevated, and dark by reason of short hours of sunshine, or fogs, as in many goitre valleys. But the disease also occurs in lower, open and light regions, even near the seashore, though in general the latter is almost or quite exempt. I have not yet had an opportunity of informing myself regarding the incidence of goitre in Louisiana and adjacent States. Gibbs described goitre as prevalent in De Soto Parish, many years ago, among the Creoles in the region of the lake, and of very considerable size (Fenner's Reports, II p. 190). I shall appreciate any information on the subject that may be possessed by physicians in various parts of the State. Epidemics of goitre occur usually among persons living together, as in schools or barracks, in goitre regions. We are still ignorant of the real or exciting causes of goitre, and have to content ourselves with recognizing assisting factors and speculating or searching for the others. We know that early life, about puberty, is the

most common age to be affected; that it rarely begins after forty; that women are more disposed than men in the proportion of about six or eight to one. Irritation of the sexual organs, disease of the uterus and ovaries, pregnancy and confinement, all seem to have close relations with goitre. Various acute infectious diseases sometimes bring it on, apparently, probably, as the result of an acute inflammation of the thyroid gland; less frequently, tuberculosis and syphilis. Some observers have found the thyroid affected often in acute rheumatism. Trauma has often been thought a possible cause of goitre. Afelt has reported a case in which a translator had been working long hours, turning the head from the original to the copy. She noticed a pain in the neck, was obliged to loosen the collar, and on examination was found to have a goitre. The goitre became smaller under rest, but an experimental repetition of the same kind of work was followed by a return of the goitre in four days. In the clinic of Dr. Olmstead of Atlanta, I saw a decorator who had a similar condition and history. He was obliged to turn his head frequently in his work, felt a pain and later a swelling in the thyroid region, and soon after had symptoms of exophthalmic goitre—sweating, emaciation, dyspnea, nervousness and tremor, and tachycardia. Later, eye signs appeared.

The geographic relations of goitre have led to a careful study of the soil. Bircher especially has made a careful geologic analysis, and has laid down a general law that goitre does not occur over fresh water alluvium. This has been confirmed by others, in England and Norway, but it does not seem to go very far in explaining the real causes of goitre. The belief that water contains the cause is very old and world-wide. One after another the ingredients in the water that were supposed to cause goitre have been exonerated as the result of accurate research. So, snow-water, various mineral constituents, algæ and bacteria, have all been given up as innocent. An increase of or deficit of iodine sometimes seems suggestive, though not as yet wholly explanatory. Répin has recently analyzed certain Alpine waters with reference to radio-activity, and finds that the "goitre-waters" are notably radioactive, from radio-thorium. This subject deserves further investigation. So many facts point to water as the source of the goitre agent that continued search is necessary. The course of the

disease in many cases, its seasonal and temporary occurrence among visitors to goitre regions, its apparent cessation in some by boiling the drinking water—all point to a living organism. Since the ordinary germs of water, bacteria and algae, have been found innocent, it is incumbent to search for bacterial forms as yet unknown, as well as for protozon. McCarrison (*Quarterly Jour. of Med.*, 2, 279) reports some interesting observations, which lead him to think goitre is due to parasites in the intestine, but he leaves undetermined the question whether amebæ, found to a large extent in his cases, are the causes. As he was working in a locality where intestinal amebæ are common, it is necessary to exercise great caution in drawing a conclusion. I have examined the feces of a great many goitrous subjects under conditions favorable for finding amebæ if present, but with negative results. It is also noteworthy that goitre is not often found in many places where amebæ are often found in the stools. But our scanty knowledge of the pathogenic relations of amebæ makes it all the more necessary to exercise great care in the further investigation of the relations.

I shall not enter into details regarding the morbid anatomy of goitre. In brief, there is in the simple goitres a hyperplasia with increase of colloid. The blood-vessels and connective tissue are also increased. If hyperplasia is the chief feature we speak of parenchymatous goitre; if colloid, we call it a colloid goitre. The goitre of Basedow's disease is characterized by the great increase of epithelium, as well as high vascularity. Various degenerative processes, especially fibroid, and local variations of histologic type, lead to a number of varieties in size and shape that need not be detailed. Cystic change, from softening or hemorrhage, is very common and of great clinical importance.

Clinically, goitres vary enormously in significance. Some are not only harmless, but may be not easily discoverable. Some even improve the appearance of the neck, a fact recognized by some of the early Italian painters. As the normal thyroid gland varies in size, it may be possible for the gland in a given case to be enlarged, and yet not larger than the average. Goitre is assumed when the gland is large enough to be seen, or when on palpation it appears above the proportions normal for the patient. Either the whole gland may be enlarged, or one of the lateral lobes, especially the right, or the isthmus, the pyramidal process, if

present, or an aberrant thyroid, anywhere between the root of the tongue, the angles of the jaw, and the aorta.

As regards symptoms, I shall leave out of consideration those found in exophthalmic goitre, and consider only those in simple goitre. Malignant goitres differ from the latter chiefly in rate and mode of growth, and in the formation of metastases and cachexia.

In many cases deformity is the main result, not only in the case of enormous goitres, but even in many no larger than a walnut, depending on the patient's habits and duties. In others there is pressure on various adjacent organs, and varying from a slight inconvenience by causing cough up to dangerous occlusion of the trachea, or pressure on the recurrent nerve, less frequently the vagus or sympathetic, or the esophagus. Sometimes pressure on the great vessels is important. Hemicrania, and pain behind the ears, sometimes occurs. The relation of goitre to the heart is partly unsettled. Some believe that tachycardia and palpitation may be caused by the mechanical irritation of the goitre on the cardiac nerves. Others admit the possibility of affecting the heart by pressure on the veins, but look on other cardiac alterations as toxic, and belonging to the class of hyperthyroid syndromes, along with exophthalmic goitre. This view seems more reasonable to me from the study of a large number of goitre cases of all kinds.

The diagnosis of goitre is usually not a matter of much difficulty. The position, the shape corresponding to all or part of the thyroid, the upward movement on swallowing, all combine to make an unmistakable picture. In the case of a lingual, submaxillary, substernal or intrathoracic goitre the diagnosis is much more difficult, and if there is no goitre in the usual region may be impossible without extirpation and histologic examination. When the goitre is diagnosed, however, the task of the physician is not yet finished. In each case an effort should be made to learn the exact nature and possible danger of the tumor. A careful examination of the skin with reference to color, possible adhesions or infiltration should be made. The consistency of all parts of the growth should be investigated, with reference to localized nodules, which may be adenomata, malignant or fibroid, and to cysts. The latter are often easy to recognize by their physical peculiarities, but often they are not. In all cases where cysts seem probable, or where

treatment is unsatisfactory, careful exploration under aseptic precautions should be made. The existence of thrill or murmur must always be sought for. They almost invariably indicate Basedowian goitre. After the complete examination of the goitre, there is still the investigation of all other parts of the body, in order to find either some assisting factor, as pelvic disease, or some results of the thyroid disease, as tachycardia, nervousness, emaciation, etc.

The treatment of goitre varies according to the nature of the process chiefly. Malignant processes and cysts should be treated by extirpation; cysts cannot be cured medicinally, and injections to bring about obliteration are more dangerous than extirpation.

For the goitre of Basedow's disease there are several recent methods of treatment that should be carefully followed up by the profession, but I have not included this subject, which will be considered by my colleague, Dr. Elliott.

The simple goitres require treatment by iodine. Whether we look on this as a thyroid "tonic" or a substitution treatment, it can hardly be doubted that it is a sort of specific for a large proportion of goitres. Yet there are great differences in the rapidity and certainty of the results, differences that are partly explained by the investigations of A. Kocher on iodine excretion in different kinds of goitres. In small, parenchymatous goitres of recent development the results of iodine treatment are almost miraculous, and even the most minute quantity, as by the external application, suffices. In older, more colloid goitres greater care and persistency are required. In regard to the choice of external and internal administration, I think that the latter is always to be preferred, and that external applications, if used at all, should never be carried to the point of causing blisters or permanent pigmentation. The method of choice is the administration of iodine in solution, alone or in combination with an iodide. As excretion is slow, an accumulation should be avoided by giving small doses, or intermitting, or both. From five to twenty minims of Lugol's solution may be given three times a day, every other day. In many cases even large goitres will subside in two weeks under this method. Others require a longer time. Thyroid extract has no advantage over iodine preparations, but many disadvantages. Röntgen rays often cause reduction of the goitre, but often fail. Injections are sometimes useful, but are as dangerous as operations. Patients under treatment should not drink

water unboiled, and in goitre regions all drinking water should be boiled.

All goitre patients should be advised about the importance of examinations from time to time, in order to detect as early as possible a secondary result, such as exophthalmic goitre or myxedema.

DISCUSSION.

DR. S. K. SIMON, of New Orleans. The suggestion recently made by McCarrison in the *Archives of Medicine* in connection with the presence of certain amebæ in the drinking water of exophthalmic goitre cases has proved very interesting. Dr. Van Wart has recently referred to me one of his cases to determine whether there was any ameboid life in the intestinal canal. I examined the stools after giving a dose of salts, but the only parasite found was the *cercomonas*, which, of course, is frequently present in the stools under ordinary conditions, perfectly compatible with good health and without causing any pathological lesions. There is one thing that is certain in regard to goitre that has long been known, and that is that many of the cases more especially of the larval types clear up readily when the drinking water is boiled. The chemical constituents cannot be much changed by boiling, so that it seems plausible to infer that if the boiling of water has any influence on exophthalmic goitre it must be due to some living organisms in the water. I propose to carry out further investigations along this line, and perhaps McCarrison's suggestion will be found to have more in it than would be suggested at first reading.

DR. J. A. STORCK, of New Orleans. Regarding the frequency of goitre in this section, my personal experience would lead me to believe it quite common, though not as general as in some of the European communities.

In the female medical clinic under my charge at the Charity Hospital I have already seen this year eight well-marked cases, and about twice as many in which the symptoms were not well-defined, the thyroid being only slightly enlarged. During my connection with the Eye, Ear, Nose and Throat Hospital, some years ago, I saw many well-marked cases of the disease, and had the opportunity of testing several lines of treatment, particularly iodine and the galvanic current. Some of the cases improved

considerably, while others again showed no evidence of change for the better, but even grew worse. Quite recently, through the kindness of Dr. Edith Loeber, I saw a case in which the disease is apparently cured, after the use of Rogers and Beebe serum.

DR. C. W. DUVAL, of New Orleans. The pathology of goitre shows that the cause is bacterial. As Dr. Dock points out, the pathological lesion is chiefly characterized by an inflammatory condition of the stroma. Certainly you have chronic inflammation as the chief lesion, and this is not so much with the parenchyma of the organ as it is with the stroma and connective tissue. We find the blood vessels usually in a state of proliferative endarteritis, and we find the so-called round-celled infiltration, and, in fact, all the evidence of a chronic inflammatory lesion. This would point to some infection of low virulence something like the influenza group of organisms. So it is just possible that we may find that an infection of this nature is at the bottom of goitre—certainly simple goitre—and that water may well be the carrier.

DR. DOCK (in closing). In regard to the proportion of cases necessary to make a locality goitrous, I would like to say that such a proportion as Dr. Storck mentioned is not considered a great one. For example, in the region of the Great Lakes there are about ten per cent of young girls within three or four years of the twentieth that have goitres that are visible. Among the French-Canadians along the St. Lawrence every family has several members usually, and sometimes a whole family is affected. Among the Indians in the Rocky Mountains one or two per cent of all ages and sexes have it. Even in the males in the Lake region goitres are very common, and in such localities the lower animals have them, too. For example, around the Great Lakes dogs, horses, cattle, squirrels and sheep have goitres to a great extent. And the matter of goitre in sheep especially is of considerable importance, because those who use thyroid preparations made in the neighborhood of Detroit are likely to use preparations that come from diseased thyroids. Whether that makes them undesirable, I am not able to say, but the fact is that we have been using preparations that could not be considered as representing normal thyroids. The subject is being investigated now, and the makers themselves are paying some attention to it, but just exactly where we stand I cannot yet tell.

I would like to point out that in speaking of endemic goitre we should distinguish between simple goitres and exophthalmic goitres. There is no necessary relation between them. Exophthalmic goitre is an extremely interesting and important disease, and deserves very careful attention, as Dr. Storek's words indicate.

In regard to the cause of goitre, I think it most likely that there is no single cause. When we consider under what different conditions goitres come on, we must reach that conclusion. It is true that where boiled water is drunk we almost never see it, and that after drinking boiled water it will disappear. Then consider the goitres that come on after sexual irritation or disease. Those are very common causes. So that the probabilities are that a number of reflex disturbances, and probably changes in a number of the other ductless glands have to do with it. It is not enough to examine a small number of cases. We have to examine cases from as wide an area as possible in order to tell how the etiological condition stands.

Experiences in the Staining of Bacteria in Fresh Blood.

(A preliminary report from the Tulane Laboratory of Clinical Medicine.)

By MELVIN P. BURNHAM, M. D., Harrisburg, Va., and RANDOLPH LYONS, M. D., New Orleans.

In our investigations in the staining of bacteria in fresh blood, the following diseases were studied: Typhoid fever, pneumonia and tuberculosis. In typhoid fever alone, and possibly tuberculosis, was the use of the method promising on account of the proven presence of the bacilli in the blood in considerable numbers. The clinical material was largely taken from the wards of Dr. Geo. Dock at the Charity Hospital.

The blood used in the work was obtained from various sources and in varying amounts. In some instances 5 c. c. were taken from the vein of the arm, in others 1 or 2 c. c. from the lobe of the ear, and in others thick smears on slides were made direct from the ear or from blood taken from a vein by syringe. Thorough preparation of the site from which the blood was collected was made in every case by means of soap and water, saturated

solution of bichloride of mercury and 95 per cent alcohol. Blood in amounts from 1 to 5 c. c. was immediately transferred to a test-tube containing normal salt solution to which had been added $1\frac{1}{2}$ per cent sodium citrate to prevent coagulation. The citrate solution was used in the proportion of 2 to 1 of blood. In collecting blood from the lobe of the ear a deep stab with a blood lancet was made and the blood drawn up into a sterile pipette and quickly transferred to the citrate solution. Some speed is necessary in all these manipulations in order that no coagulation may take place. The tubes containing the blood citrate mixture are centrifugalized for ten minutes at moderate speed. The sediment is then pipetted on the slides and two-thirds of the surface covered by a thick layer, which is allowed to dry in the air or by the application of gentle heat.

Blood smears were made by allowing three to five drops of blood taken either from vein or ear to flow on to a slide and spread evenly over two-thirds of its surface. Smears may also be made by letting the blood drop directly from the ear on to the slide. These smears are dried in the air. Perfectly clean slides are necessary in this work to assure the avoidance of possible contaminations. By cleaning in soap and water and nitric acid and then passing through the flame of a bunsen burner till very hot all extraneous matter will be removed.

The next step is to remove the blood pigment in order to allow the use of stains for the demonstration of bacteria if present. We found the most satisfactory method, though a somewhat slow one, was to place the spreads prepared from the blood citrate sediment, as well as the blood smears, into distilled water and allow them to remain three hours. In some preparations made in the course of our work numerous vibrios were found on the stained slides which we traced to the water used in this part of the technic. It is necessary to avoid this happening, for, although they are recognized without difficulty when once the attention has been called to them, nevertheless their presence might be mistaken by one not familiar with them. The danger of this occurrence is easily obviated by using water very recently distilled or direct from the still, and by the thorough cleansing of the jars before using by means of a strong solution of a mineral acid.

In the cases of tuberculosis we followed the technic described by Rosenberger in the *Am. J. of Med. Sci.*, Feb., 1909.

At the expiration of three hours the slides are removed from the water and found to be completely decolorized. As slides thickly spread are used, some care is necessary in this step or some of the preparation may slip off. These slides are then dried by exposing them to very moderate heat. Thorough drying is sufficient to fix the smear and no other fixation is necessary. The slides from the typhoid and pneumonia cases are now stained by Gram's method, using a dilute watery solution of carbol-fuchsin (1 to 50) as a counter stain. Slides from the tuberculosis cases were stained by any of the reliable methods for the demonstration of tubercle bacilli.

At this time we are able to report on a very limited number of cases. In all 10 cases of typhoid, 5 of pneumonia and 10 of pulmonary tuberculosis were studied. Every case of typhoid had either positive culture or positive agglutination reaction, and all the cases of tuberculosis had tubercle bacilli in the sputum. The pneumonia cases presented clinically the characteristic course of a lobar pneumonia and diplococci were demonstrated in large numbers in the sputum. In 6 of the 10 typhoid cases, organisms were present in the smears, similar in morphological appearance to the typhoid bacilli, and taking the gram-neg. stain. In 4 of these cases the blood was examined on the 7th, 9th, 12th and 16th days of the disease, and in the remaining two cases as definitely as could be determined in the third week. In the two cases taken on the 9th and 12th day of the disease, respectively, bacilli were found in considerable numbers, both in spreads taken from the blood-citrate mixture and in smears made directly from the ear; a few days later both of these cases showed a great diminution in numbers of bacilli present. In the case taken on the 16th day a few bacilli were found in the smears and spreads, but a second examination, three days later, failed to show them. In one of the cases taken in the third week very few free bacilli were noted, but three large clumps were encountered in the examination of as many slides; this case had a positive Widal as well as positive blood culture. It is interesting to record here that in the six positive cases, blood cultures taken at the same time were all positive, but of the four negative cases, two failed to give a posi-

tive culture. In three of the positive cases in which the blood was taken directly from the ear by allowing a few drops to fall upon the slide the bacilli were easily demonstrated.

These cases are too few to allow of statement by percentages, but the figures are suggestive and coincide with what is already known concerning the presence of the bacilli in the blood.

It might be well to add here again, that unless distilled water is used and the staining jars in which the spreads are thoroughly cleansed with acid, confusion may arise from the presence of gram-neg. water vibrio. Also judgment must be used in not mistaking artifats for the typhoid bacilli, which they may resemble somewhat in shape and staining reaction.

In the five cases of pneumonia studied, no pneumococci could be demonstrated in any of the slides made. The blood was taken on the fifth day of the disease in one case, on the sixth in two, and the seventh in the remaining two. In each case two c. c. of blood were taken from the ear and in one cases in addition blood from the vein was used. Blood cultures were made in two of the cases with negative results. As none of these cases were fatal, it is possible that the pneumococci may not have been in the peripheral circulation at the time or in too small numbers to be demonstrated in smears. We think that in the future study the examination of 5 c. c. of blood instead of 2 c. c. may give different results.

In the ten cases of pulmonary tuberculosis studied we were unable to confirm the observation of Rosenberger in any instance. Several slides were made in each case, and examined for considerable lengths of time, with absolute failure to show a single tubercle bacillus. In three of these cases from 3 to 5 c. c. of citrated blood was injected into three guinea pigs. Autopsies performed after four to six weeks were negative.

In one doubtful case presenting, clinically, no definite lesion, in spreads made from blood taken from the lobe of the ear, using the citrate solution, acid-fast bacilli were demonstrated in large numbers in several slides. The patient, however, made a good recovery in a few weeks. It is possible that the acid-fast bacilli found in this case were contaminations from the ear wax due to faulty technic in the preparation of the field and may have been smegma or Lustgarten's bacilli, although they resisted decolorization with the usual treatment of alcohol. This is an error of

technic to be carefully avoided and no slide prepared from blood of the ear in which search for the tubercle bacillus is being made should be allowed to escape vigorous applications of alcohol as a decolorizing agent.

By accident one case of malaria was included in our study of the blood by this technic. The blood contained many plasmodia as shown by means of the Wright stain, which in the preparations made by this method appeared as well-marked brown or greenish areas of pigment. Another case of malaria examined in this manner showed the same excess of pigment. Were there no other and better method of demonstrating the presence of plasmodia, this technic might be useful.

The relative small number of cases studied does not allow of definite conclusions.

The advantages of the methods described are that they are

(1) Simple, comparatively rapid, and do not require a bacteriological outfit;

(2) They permit of the morphological study of bacteria as they appear in the blood, unaltered by culture in artificial media.

(3) They permit of the recognition of organisms which require a specialized staining technic or whose morphology is characteristic. The tubercle bacillus may be mentioned as an example of the former. The latter are well illustrated by the demonstration of the trichinella spiralis in the circulating blood in man, by Herrick & Janeway.* Their method differed, however, in that the blood was collected in a 3 per cent acetic acid solution—this was centrifugalized and smears made from the sediment. It is not at all improbable that by the above methods the spirochæta pallida may be demonstrated in the circulating blood of man.

To determine the actual value of the methods described will necessitate the careful study of many more specimens of blood, which we hope to report on later.

DISCUSSION.

DR. GEORGE DOCK, of New Orleans. This is an extremely interesting and, I think, important contribution. I have followed up the work and can testify to the accuracy of Dr. Lyons' observations. Anybody who has seen that sort of work or anybody who has tried

* *Arch. of Int. Med.*, Vol. 3, No. 3, April 15, 1907.

to do it, I think, will agree in this, that it is not only extremely interesting in a bacteriological and biological sense, but it also shows how advisable it is in our clinical work to consider the other clinical features as well as the bacteriological ones. Nobody can examine Dr. Lyons' preparations without being convinced, for instance, that a hasty diagnosis on the Widal reaction, without a clinical examination of the patient, is not, after all, a very good thing to do. The further progress of the work, I think, should be followed up by everybody interested in this important part of medicine.

With reference to the Rosenberger observations, I may say that Dr. Lyons' results will be confirmed by most others. Rosenberger's results were so startling—finding tubercle bacilli in large proportions in the blood—that they had to be tested by others, and from all I can gather Rosenberger stands rather alone in the ease with which he finds tubercle bacilli in the circulating blood.

DR. C. W. DUVAL, of New Orleans. Dr. Lyons' paper was extremely interesting to me. I would suggest to him that in early cases of typhoid fever, where the organisms are very scarce in the blood—which they are at certain times—that he has to consider the question of the colon bacillus, which is all over our bodies, for instance, on the lobe of the ear or the finger, so that a few Gram-negative bacilli might well be the colon bacillus. Of course, where there are a great many bacilli in smears made in this way, with the clinical picture of typhoid, there is not much doubt that the bacilli are typhoid, but it is well to bear in mind that you get cases of typhoid early in the disease where there are very few typhoid bacilli circulating in the blood, and there may not be any more than you get washed off the lobe of the ear or the finger of colon bacilli, which we all know are everywhere present on the outer surface of the body. The method is certainly of interest, and, as he points out, well worth following up further.

DR. J. D. WEIS, of New Orleans. It would like to add one word about the Rosenberger reaction. I have had about the same experience that Dr. Lyons has had. Three were entirely negative. One from the ear was positive and I believe that came from the ear wax that Dr. Lyons mentions. The other three were entirely negative.

DR. C. C. BASS, of New Orleans. I have had occasion to try the technic in a very few cases, some five or six, and have been unable

to find tubercle bacilli in any of the cases, although they were positive cases of tuberculosis.

I would like to call attention in this connection to a case of meningitis reported by Simon some five or six years ago, in which he found enormous numbers of diplococci in the blood, both extra and intra-cellular. He had examined several other cases and had not been able to find them in any instance.

DR. WALLACE J. DUREL, of New Orleans. I remember meeting Dr. Rosenberger in Washington at the International Congress on Tuberculosis, and I remember an elaborate discussion on this point. The consensus of opinion of most authorities there was that there was faulty technic, and the opinion was that the findings of Dr. Rosenberger were exaggerated.

DR. LYONS (in closing). I do not think anybody that I have heard of has been able to confirm Dr. Rosenberger's results. A doctor who came here from Michigan said one or two cases had been found in his laboratory. I saw a letter which Dr. Rosenberger wrote in answer to an inquiry about his technic. He gave more details and made the statement there, which does not appear in his paper, that the bacilli are very much easier to find in the incipient cases than in the older or more advanced ones. Now, in our work we had several early cases, first stage cases, and we could not find the bacilli in them any more than in the others. We also followed his technic exactly as he stated, and sent him one or two of our slides. He said they looked all right, but he could not find anything.

In regard to the work we have been doing, we do not make any claims at all. Of course, you cannot make a positive diagnosis from morphology alone. When you have got a positive culture to back you up and find Gram-negative bacilli in the blood, they are probably typhoid. Of course, if you found paratyphoid or colon it would be that. You cannot make a differential diagnosis. In a disease like syphilis the organism would be characteristic enough for one to make a diagnosis, just as the finding of the trichinilla is characteristic. But the finding of a few acid-fast bacilli, especially when the blood is taken from the ear, should not be considered a positive diagnosis of tuberculosis, because there are other acid-fast bacilli in that region.

Therapeutics of High Frequency Currents.

By ADOLPH HENRIQUES, M. D.,

High frequency currents were introduced into medicine in 1891. They are so named because of the extremely rapid oscillations characterizing them, possessing also very high voltage. They have been applied to the treatment of various disorders. With an increasing knowledge of the physiological effects which these currents have manifested, an impetus has been given to their constantly enlarging field of practical application.

In a paper before the Orleans Parish Medical Society in March last, besides showing how these currents are produced, the author drew attention to the salient features of their physiological action—facts which have been placed upon a sound basis by numerous, carefully conducted observations. The following conclusions were drawn at that time and refer chiefly to their general application.

1. H. F. currents, by reason of their great frequency and high voltage, effect the rapid charging and discharging of the cells of the body with electricity.

2. They act with appreciable symptoms on the motor and sensory nervous systems. (This applies to their general application, which is free from any disagreeable sensation; certain of their local applications are attended by painful sensations of varying degree, dependent upon their mode of application.)

3. Their effect is an increase of the metabolic activity of the body cells in general, as evidenced by the increase of oxygen absorbed and of carbon dioxide eliminated; also as shown by the urinary changes and by thermogenesis. (An increase of total nitrogen, urea, chlorides, sulphates and phosphates is excreted in the urine.)

4. Their action is accompanied by an increase of heat production and of heat elimination nearly double the normal quantities.

5. The heat elimination is attended by a dilatation of the superficial capillaries throughout the body.

Local H. F. Currents are indicated in certain dermatological and superficial affections.

General applications of H. F. currents are indicated in vasomotor disturbances, whether general or localized, and in those

diseases caused by defective metabolism, whether of gland or of muscle.

In the treatment of cutaneous affections, judging by the effects, the best results are obtained by a combination of both general and local applications. There seems to be a stimulation of the healthy cells adjoining the lesions, with increased vitality to attenuate the infectious agent, to eliminate effete matter and to multiply rapidly. Varying degrees of hyperemia can be obtained by means of these currents locally applied, and in some cases, viz., conditions of hypertrophy or malignancy, the treatment can be extended sufficiently to cause a necrosis of the part treated. In the latter case, after elimination of the slough, the cavity fills very quickly with granulations and the resulting cicatrix is smooth and excellent from a cosmetic standpoint.

The principal diseases of the skin which have been successfully treated by the local application of H. F. currents are: Eczema, (1, 2, 3, 4, 5, 6, 7, 8)*; pruritus, (2, 5, 7, 8, 19, 20); pruritus, anal and vulvar, (12); acne (7); acne vulgaris, (4, 6, 9); acne rosacea, (2, 6, 9); psoriasis, (1, 2, 7); lupus erythematosus, (2, 7); lupus vulgaris, in connection with X-ray treatment, (6); lupus vulgaris, (7, 10); lupus, tubercular, (48).

Desnozy reports several cases recorded where general and local applications to one patch of lupus have been followed by the cure of patches of lupus remote from the one locally treated.

Warts, (1, 9); papilloma, (9); moles, (9).

Redard and Barret (18) recommend local H. F. in the treatment of keloids, and report a successful technic in a case 5 to 6 centimetres in diameter.

Radio-dermatitis has been cured by the action of the H. F. spark (17). Premature baldness has been treated with fair success, that occurring under the age of 35 years, although one case age 40 has been treated successfully by McKee (14), no improvement having been noted for six months, followed in a few weeks by a good growth of hair. He reports 9 successful cases. Treatment in these cases varied from 1 to 9 months in duration.

Vassilides (15) reports 14 cases cured; one of these was without a single hair on the head for 10 years in spite of many medicinal applications. Bordet (16) reports one case of two years' standing as cured.

Neuralgia has been cured by local H. F. currents (5, 8, 19).

Sciatica due to some diathetic condition, as diabetes, gout or rheumatism, can often be cured or much improved by H. F. locally applied (3, 22).

Polyn neuritis. Durand (23) reports two cases, due to malaria, cured after the failure of the usual treatments by H. F.

Hemorrhoids and anal fissures. If for no other reason than their efficacy in the treatment of hemorrhoids and anal fissures, H. F. currents should be employed. Results from their local application in these conditions are gratifying. Bokenham (24) reports 118 cases treated by this method, first advocated by Doumer in 1897. The following advantages are claimed for this method:

1. Treatment is painless.
2. Involves no interference with ordinary occupations.
3. Effects a cure in a very large percentage of cases treated.

The Doumer method, by local application, is strikingly and quickly successful in cases of fissure of the rectal sphincter, and in healing the small fissures so often associated with hemorrhoids; it is valuable in relieving pruritus and associated with similar conditions. Its value in the treatment of external and internal piles is greatest in early cases which do not exhibit excessive hyperplasia and thickening of tissue. In cases of very old standing accompanied by much hypertrophic change and infiltration of the hemorrhoidal tissues, the treatment gives less certain results. Five or six treatments in many cases of fissure and also recent hemorrhoid are often sufficient. The current in these cases, while sedative to the sensory nerves involved, is at the same time stimulant to the local capillary circulation. That the effect of the current is not confined to the immediate part is shown by the fact that very often the constipation accompanying the condition is ameliorated, sometimes cured (25). Dupeyrac (26) also calls attention to the benefit of this treatment.

Chronic prostatitis and chronic urethritis have in a large number of cases yielded to these currents. Snow reports 75 cases with 80 per cent of cures. Johnson (37) reports 7 cases with 6 cures. In chronic urethritis where shreds occur without pus, local applications are often of service in stimulating the relaxed and sluggish mucous membrane to normal tone.

In dilatation of the stomach good results have been obtained

which have been attributed to stimulation of the vagus, which tones the unstriated muscle of the stomach. The action of H. F. currents here is probably the same as in the hemorrhoidal state—by improving the capillary circulation the nutrition of the stomach itself is modified and results in improved tone of its muscular fibres. Crombie and Bokenham (27) report cures in 15 out of 17 cases of non-obstructive dilatation, the diseased condition varying in duration from a few months to 15 years.

General Conditions.—In the treatment of general conditions such as diabetes, gout, uric acid diathesis, tuberculosis, etc., general applications are chiefly used, with local applications to combat any special symptoms. In all of these diseases, as well as the foregoing ones, careful attention to diet and hygiene as well as judicious medication will necessarily attain the more rapid and better results.

Diabetes. In diabetes results so far obtained show:

1. A nearly constant improvement of the general state (return of vitality, sensation of well-being, etc.).

2. A diminution of the different signs of diabetes, proceeding sometimes to a symptomatic cure.

3. The influence on the sugar is less constant, sometimes a diminution, rarely an increase, as often an oscillation, or absence of modification of sugar eliminated.

Imbert (28) reports three cases with marked improvement.

Laquerriere (30) reports 34 cases—objective symptoms improved.

Vidal and Chalamel (29) report six cases—objective symptoms improved.

Apostoli and Berlioz, many cases, sugar often diminished (31).

Vinaj et Vietti, four cases, disappearance of sugar (31).

Reale and de Renzi, many cases, disappearance of sugar (31).

Boedeker, three cases, sugar not modified, general improvement of symptoms (31).

Vinas, amelioration of general state and diminution of sugar (31).

Desnoyez, three cases, very marked improvement in general state (31).

De Kraft (32) has used H. F. successfully in diabetes.

Varying results as to the amount of sugar may be on account of the varying causes of this disease.

In the uric acid diathesis favorable reports have been made as to the improvement in the general state of health. This is in keeping with the physiological action of the currents (32), local symptoms showing a corresponding amelioration.

Gout. Davis (33), of Boston, reports over 100 chronic cases and states that only in two was relief not obtained.

Arterio-sclerosis. Many cases of arterio-sclerosis have been treated with H. F. currents. Although the fall in blood pressure of these cases is not constant, the effect on the general state and subjective symptoms of these patients is often very appreciable. No. positive direct influence on the walls of the vessels has been proved, but it is probable that by modifying the general nutrition of the body and by improving it, H. F. currents may alternate the evolution of the processes of sclerosis. The application is capable of playing an important role in aiding the patient to produce less of toxins and to eliminate them better (19 and 34). The action of these currents is evidently through regulation of the vaso-motor system, which governs the blood supply of the body.

Coldness of the extremities (35) and congestion of the face have been cured by this method.

Bonnefoy (36) reports 5 cases of Raynaud's disease cured by H. F. currents.

Laquer (19) reports, in organic diseases of the heart, without complications of arterio-sclerosis, satisfactory results by local applications of H. F. He observed not only a subjective improvement of the disease, but also, in two cases, a diminution of the cardiac dilatation. Rumpf (19) has obtained objective diminution of size of heart in cases of dilatation.

Before concluding, a few words relative to the two diseases tuberculosis and cancer will not be amiss.

Tuberculosis. Bonnefoy (38) reports a case of tubercular testes where both testicles were involved—man free from venereal disease—cured over 2 years by local applications of H. F.

Edwards (3) reports a case cured. In pulmonary tuberculosis, Thielle, of Rouen, reports 26 cases treated by H. F. applications, claiming that the treatment arrests the demineralization of the

blood. Goss (40) reports 38 recoveries by H. F. Bashinger (41) reports one case cured. Leun (42) reports one case cured.

Malignant growths. In the treatment of malignant disease, the method known as *Fulguration* (as elaborated by Dr. Keating-Hart, of Marseilles, France) has received considerable attention. While the cases treated successfully have not yet been well sufficiently long to determine the relative value of the treatment, the results so far obtained are very encouraging. Treatment is partly surgical, partly electrical. The malignant tissue is removed by the knife or curette up to its *macroscopic* connection with the healthy tissues. H. F. sparks are then applied (under anesthesia) and have the effect of checking capillary hemorrhage and causing a tremendous outpour of serum. This is followed later by elimination of slough and rapid growth of granulation tissue. For further details as to method and post operative appearances the reader is referred to articles by Keating-Hart (46) and brochure by Juge (47).

In the case of this method, Czerny (43) reports 3 cases; King (10), one case of rodent ulcer. Stern (44) reports the cure of small nodular epitheliomata. Delherm (45), epithelioma of the orbit of the eye cured 2½ years. Keating-Hart (46) and Juge (47) report 40 cases treated by this method, among which are three cases of cancer of the breast cured 29, 27, 28 months, respectively. Bergonie (49) sums up the advantages of this method as follows:

During the operation 1, easy hemostasis by the H. F. spark of capillary hemorrhage.

Immediately after, 2, no operative shock; 3, very abundant lymphorrhœa in most cases.

Following this, 4, cicatrization with very rapid progress of the "fulgurated" areas; 5, regularization of the cicatrix; 6, loss of substance filled up in an un hoped for way; 7, general state of patients much improved.

REFERENCES.

1. Keating-Hart. *Sur l'action d'étincelle sur les tissus. Congrès International d'Electricité de Marseille, Sept., 1908.*
2. Vassilides. *Des courants de haute fréquence. II Congrès International de Physiothérapie, Rome, 1907.*
3. Edwards. *Brief Report of Cases Treated by H. F. Currents. Jl. Advanced Therapeutics, Jan., 1906.*
4. Pope. *Some Recent Observations Upon the Action and Therapeutic Value of Currents of H. F. and High Potential. Jl. Advanced Therapeutics, Jan., 1906 (abs.).*

5. Piffard. Some New H. F. Devices. *N. Y. Med. Jl.*, March 2, 1907.
6. Burch. Physiological Action and Therapeutic Effect of Vacuum Tube Discharges. *Jl. Advanced Therapeutics*.
7. Desnoyer. *III Congres International de Milan*, Sept., 1906.
8. Fouveau de Cormelles. *Contribution a l'étude de la haute fréquence. Congres de Reims*, Aug., 1907.
9. Cook. The H. F. Metallic Discharge. *N. Y. Med. Record*, Dec. 11, 1907.
10. King. Fulguration Discharges in Medicine and Surgery. *Jl. Advanced Therapeutics*, April, 1909.
11. Keating-Hart. *Emploi des courants de haute fréquence dans le traitement du lupus. Congres de Clermont Ferrand*, Aug., 1908.
12. Lucrezio. *Courants de haute fréquence. II Congres International de Physiothérapie*, Rome, 1907.
13. American Electro-Therapeutic Assn. Report of Committee on H. F. and High Potential Currents. Sept., 1908.
14. McKee. The H. F. Spark in the Treatment of Premature Alopecia. *N. Y. Med. Jl.*, July 28, 1906.
15. Vassilides. *Le traitement de la Pelade par les courants de H. F. Archives D'Electricité Médicale*, Feb. 10, 1906.
16. Bordet. *La Pelade rebelle traitée par la haute fréquence. Congres de Reims*, Aug., 1907.
17. *Archives D'Electricité Médicale*. Un nouveau traitement de la radio-dermatite chronique des médecins-électriciens. Dec. 25, 1908.
18. Redord et Barret. *Traitement des chéloïdes par l'effluve de haute fréquence. Archives D'Electricité Méd.*, March 25, 1907.
19. Laquer. *Les courants de H. F. II Congres Int. de Physiothérapie*, Rome, 1907.
20. Nagerschmidt. *Les indications du traitement par la H. F. Revue de thérap. medico-chirurg.* July 15, 1907.
21. Bellomaniere. *Le traitement de la pyorrhée alvéola-dentaire par les effluves de haute fréquence. Congres D'Electrologie et Dé Radiologie*, Amsterdam, Sept., 1908.
22. Worrall. The Treatment of Sciatica by H. F. Currents. *Archives of the Roentgen Ray*, March, 1908.
23. Durand. *Deux cas polynévrite paludéenne guéris par les courants de haute fréquence. Presse Médicale*, June 30, 1906.
24. Bokenham. The Treatment of Hemorrhoids and Allied Conditions by Oscillatory Currents of High Tension (based on experience of 118 cases). *Lancet*, July 2, 1904.
25. Fley et Frenkel. *Traitement de constipation et muco-membraneuse colites par les courants de H. F. Int. Congres Physiotherapy*, Rome, 1907.
26. Dupeyrac. *Traitement des hémorroides par les courants de haute fréquence. Rev. de Thérap.*, Feb. 15, 1907.
27. Crombie and Bokenham. The Treatment of Atonic Dilatation of the Stomach by Means of H. F. Currents. *Lancet*, Oct. 18, 1902.
28. Imbert. *Sur quelques cas d'amélioration du diabète par la haute fréquence. Congres de Lyon*, Aug., 1906.
29. Vidal et Chalmel. *Action des courants de haute fréquence sur le diabète et l'hypertension. Congres de Lyon*, Aug., 1906.
30. Laquerrière. *Note sommaire sur les résultats obtenus a la clinique Apostoli-Laquerrière dans le traitement du diabète par la haute fréquence. Congres de Lyon*, Aug., 1906.
31. Chanoz. *Recherches physiologiques et cliniques sur l'action de la d'Arsonvalization dans l'atherome experimental chez les animaux l'hypertension artérielle permanente et le diabète chez l'homme. Congres de Lyon*, Aug., 1906.
32. De Krait. Currents of H. F. from a Static Machine. *N. Y. and Phil. Med. Jl.*, Sept. 30, 1905.
33. Davis. Gout. Its Treatment by H. F. Currents. *Jl. Advanced Ther.*, March, 1909.
34. Delhern et Laquerrière. *Sur l'action des courants de haute fréquence chez les hypertendus. Archives D'Elec. Méd.*, July 10, 1907.
35. De Nobele. *Le traitement des Algies du pied par les courants de haute fréquence. Congres d'electrologie et de radiologie, D'Amsterdam*, Sept., 1908.
36. Bonnefoy. *Traitement de la Maladie de Raynaud par les courants de haute fréquence. Bull. officiel de la Société française d'electrologie et de radiologie*.
37. Johnson. The Treatment of the Enlarged Prostate by the H. F. Current. *Jl. Advanced Ther.*, Dec., 1908.
38. Bonnefoy. *Observation d'un cas double de testicule tuberculeux traité et guéri par les effluves de H. F. Archives D'Elec. Méd.*, May 10, 1906.
39. Thicelle. The Treatment of Tubercular Disease with the H. F. Currents. *N. Y. Med. Jl.*, July 20, 1907.
40. Goss. Ionization by Means of the H. F. Currents in the Treatment of Tuberculosis. *Med. Record*, June 9, 1906.
41. Bashinger. The Static H. F. Current in Pulmonary Tuberculosis. *Jl. Advanced Ther.*
42. Leun. A Case of Pulmonary Tuberculosis Cured by H. F. Currents. *Annales d'electrologie et de radiologie*, Jan., 1906.
43. Czerny. *Sur le traitement du cancer par la fulguration. Rev. de Thérapeutique*, March 15, 1908.
44. Report of 800 Dermatological Cases Treated with X-Ray and H. F. Currents at Mt. Sinai Hospital, New York. *N. Y. Med. Jl.*, July 9, 1907.

45. Delherm. *La fulguration dans un epithelioma cutané. Resultats deux ans apres. Archives D'Elec. Méd.,* May 25, 1908.
46. Keating-Hart. *La fulguration dans le traitement du cancer. Archibes D'Elec. Méd.,* May 25, 1908.
47. Juge. *Chirurgie du cancer et fulguration. Brochure,* Sept., 1908.
48. Bizard, Keating-Hart et Fleig. *Lupus tuberculeux de la face traité par la fulguration. Archives D'Elec. Médicale.*
49. Bergonie. *Sur les premiers résultats obtenus sur sept cas de néoplasmes inopérables traités par la fulguration a Bordeaux. Congres de Clermont Ferrand, Aug., 1908.*

DR. WALLACE J. DUREL, of New Orleans, read a paper on "Tuberculosis. (*Manuscript not furnished Publication Committee.*)

DISCUSSION OF PAPER OF DR. DUREL.

DR. J. A. STORCK, of New Orleans. I wish to congratulate the Doctor on his results, but I must confess that I am among those who yet think that a properly selected climate has considerable influence. I think that a locality with a minimum amount of dust and a low humidity, allowing the patient to live out of doors as many hours as possible, has some advantages. I will grant that the climate alone, without the dietetic treatment, would be of no use, and I do not think anybody would be bold enough to attempt treatment on that basis. Right here in New Orleans I see very good results in clinic practice, and in a number of instances have seen apparent cures. I say apparent cures, because I am not absolutely sure that a tuberculous subject ever gets entirely well, and the mere fact that there is no reaction to tuberculin would not convince me. I saw a case, where, after six or eight months of apparent recovery, the reaction having proved negative, the patient again showed pronounced symptoms of tuberculosis.

DR. J. G. DEMPSEY, of New Orleans. I do not believe to-day they are laying so much stress on the necessity of putting these tuberculous cases into a certain atmosphere. It has been my experience this past summer to do some investigating abroad in this particular line. In Ireland, as we know from past history, almost every year the mortality was greater from tuberculosis than in any other sections. Upon investigation, I found that the surroundings were entirely to blame. They lived in nothing but mud huts, and when they were taken from these huts into sanitariums and put under proper hygienic treatment and given proper instructions about diet, the successes have been greater, and Ireland

to-day is not looked upon as the pest-hole that it was a few years ago.

DR. S. K. SIMON, of New Orleans. I am sure we all appreciate very much Dr. Durel's splendid paper. I was very much impressed with the fact that the Doctor emphasized the necessity of watching the digestion in these cases. I think it is the consensus of opinion now that, no matter what form of treatment is adopted in tuberculosis, whether climatic or tuberculin, or both combined, unless the patient's digestive apparatus is in good condition, or rather unless he can assimilate food and thereby conserve his nutrition, all plans of treatment will be found essentially futile. It is sometimes very interesting to look carefully into the details of the digestive apparatus of some of these patients. Most of them in the very beginning show a strongly acid juice, with a tendency to dilatation of the stomach, but after a while, that is, after the disease has continued for some time, the acid seems to drop slowly, until at the end we very often find a complete lack of hydrochloric acid or an achylia gastrica. For example, last year I saw with Dr. Durel a tuberculous boy who was complaining of a constant diarrhea. We had examined the stools for tubercle bacilli. None were found. The diarrhea did not impress us, however, as an inflammatory diarrhea at all. I finally introduced a stomach tube, and a total lack of hydrochloric acid was noted, a condition which we know very frequently causes diarrhea. The use of large doses of hydrochloric acid in that case completely checked all the digestive disturbances and the diarrhea. I think it is always important to consider the digestive apparatus of consumptives, because upon that hinges very often the failure or success of treatment.

DR. L. SEXTON, of New Orleans. In conversation with a doctor on the train a few weeks ago, he made this statement to me. He said that perhaps seventy per cent of the lawyers and doctors in El Paso, Texas, were ex-lungers, who had gone out there to practice their professions on account of having had tubercular trouble at home. He said that a great many of those whose disease had been arrested fifteen or twenty years were now recontracting the disease from the great number of tuberculous cases going down there, and a great many of them were dying. That was the health officer of Texas. He said also that in the natives out there tuber-

culosis is exceedingly common. Investigation upon the part of the State authorities had been followed almost by a quarantine there against tuberculosis. In some portions of the State, he says, they have a great preponderance of tuberculosis over other diseases.

It would occur to me, in regard to climatic conditions, that the more bright sunlight you can have the less tuberculosis, and that out there where they have so many days of sunshine and so little humidity—the dust perhaps irritates the lungs out there more than here—but I certainly think the climate out West, in a well selected section, would have advantages over our hot climate here, where there is so much humidity and relatively so few days of sunshine in comparison with the 320 which they claim in El Paso, Las Vegas, Las Cruces, Santa Fe, and in all that section in the great West, where tuberculous subjects have gone so numerously within the past few years.

DR. E. L. MCGEHEE, of New Orleans. I have nothing to add to this excellent paper of Dr. Durel's. I have given a good deal of thought to the subject of tuberculosis in the last year and a half. I had the pleasure of going to Washington to the recent International Congress on Tuberculosis, and I found that those gentlemen who are engaged in the work were optimistic just in proportion to their experience with the disease. Trudeau, who has a sanitarium, which I think was the first to be established in the State of New York, 35 years ago, is one of the most cheerful men to consider this disease with—always optimistic, and scarcely ever despairing of the life of a patient. Philips, of Edinburgh, Scotland, said that there they had cut down the mortality to such a degree that where fifteen years ago they lost five or six individuals from tuberculosis, to-day they lost only one.

The point I would like to touch upon is the duty of the physician in regard to this disease. The prognosis depends entirely on the stage in which it is first seen. The profession as a whole are very slow to pronounce a case "tuberculosis" when they see it. I am sure it is kindness of heart that causes this and not lack of ability to recognize it in its early stage. It may be that sometimes they fail to recognize it, but that is not the rule. The men that are being turned out to-day are well qualified and able to recognize it if they take the pains to carefully examine the patient; then tell them the *truth*. Hereofore this disease was

classified with cancer as an incurable trouble, and the doctor was somewhat excusable *then* for not telling his patient, as there was no hope of cure. But to-day, when we know that 80 per cent of cases in the early stage can be cured or arrested, the doctor is derelict in a most responsible duty when he fails to recognize the disease and so advise the patient, for the patient will not take the precautions necessary unless he knows his condition. This is the point that I would like to emphasize, that the disease be recognized early and the patients put on proper hygienic and dietetic treatment—to be cheerful and rest free from all care. I believe it is recognized by the profession that this can be best carried out in sanatoria especially conducted for that purpose.

DR. DUREL (in closing.) I would like to take exception to what Dr. Storck said with regard to climate. I agree that if we had such a thing as an ideal climate, dry, free from disease, of course that would be the spot for tuberculous patients, but I do not know of any such climate. In the West we have dryness. I have been out West; but we have dust storms there that are much worse than our climate here. In my sanitarium I do not believe that my patients are kept inside two days in the year. We have in Louisiana as good a climate to treat tuberculosis as anywhere else. You must consult statistics. All of us medical men figure by statistics. I have collected a few statistics from four different sanitariums:

Louisiana Sanitarium, incipient stage, 54 per cent apparent cures. National Jewish Hospital, Denver, Col., 64.7 per cent apparent cures in incipient cases. Fort Bayard Hospital, New Mexico, 52.88 per cent of cures in incipient cases. Massachusetts State Hospital, 1900 to 1904, an average of 73 per cent.

I did not want to bring this paper before the society before I was sure. I let two years elapse until I could collect sufficient evidence. I have figured each case and classified the cases individually, and these results I have given you ought to be as good as any of the Western results. So, then, if we have to go according to statistics, we have to conclude that climate is not indispensable for the cure of tuberculosis. I admit that we have dampness here, but we have dust in the West, and there the food is not so good. I have been there, and I can speak from experience.

Now, as to what Dr. Storck said about the patient not being

radically cured; I agree with him. I had tuberculosis myself many years ago. I do not think I ever will be cured. Nothing can be found now, but I do not feel safe up to this date. I think we should impress upon our patients the importance of proper life after they are apparently cured, for then is the time that we cannot treat them and they must treat themselves.

I agree with Dr. Simon that the stomach must be looked after. These conditions may be remedied in many instances, but then the feeding of the patient is the important point, rather than any specific or any particular quality of air.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

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DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF APRIL 26, 1909.

DISCUSSION ON DR. OECHSNER'S PAPER.

DR. BUTTERWORTH. The question of early diagnosis is the point I wish to call attention to, and failure to detect same is oftentimes attributable to insufficiency of physical examination. The use of the exploring needle is the proper procedure whenever physical signs warrant such an interference. Recently this point was emphasized by two cases in the wards of the Milliken Hospital. One child ran a constant temperature with a minimum of physical signs; the exploring needle gave only one dram of clear serum, which, injected into a guinea pig, caused death from tuberculosis on the eighteenth day. In the other case the child was in the ward for several months. The exploring needle was used on three different occasions with negative results. Post-mortem showed a miliary tuberculosis of the lungs.

In regard to the use of quinin in any febrile condition, it is well

to know that any temperature can be controlled temporarily by large doses of quinin, even though the blood examination is negative for plasmodia.

Again I wish to emphasize the use of the exploring needle as a means toward an early diagnosis of empyema.

DR. GESSNER. As to irrigation of the cavity. I once came near losing a patient who had chronic empyema from a bullet in the chest. Dr. Matas had removed a rib, and after he had gone home I saw him and irrigated him with carbolic acid solution. The man came near dying from cardiac and respiratory failure; artificial respiration restored him. Since then I do not irrigate, though I have seen no harm from using warm salt solution where there was a free opening and the force of the irrigation was not excessive. Two weeks ago I saw a case of empyema in which the left chest was full of pus and the heart pushed far to the right side. In this case I aspirated fourteen ounces the day before I drained with excision of a rib, for if sudden drainage is employed collapse may come on. In reference to the site of drainage, adhesion of the diaphragmatic and costal pleura might interfere with drainage if the incision is made too low down. For this reason, the fifth inter space in the axillary line is usually recommended, though recent text-books give a lower site.

DR. ALLEN. In the matter of aspiration, I use a sharp and a large needle, for oftentimes failure to draw pus is due to the fact that in this form of the empyema the contents are large fibrinous masses of the consistency of cream cheese with little liquid pus. Another thing is the rib resection, and we all recognize it as the thing to do. The post-operative treatment is that of respiratory gymnastics. In boys we give them horns to blow, and in adults, to blow in bottles or hold their mouths shut and blow, provided the condition is not too far gone or of too long standing, in which case the lung cannot expand; here an Eslander or some similar operation must be performed.

DR. JACOBY. I desire to offer a few suggestions along the line of the operative treatment of empyema. The technic was not originated by me, however.

First. The periosteum should be dissected back to the point of incision of the rib and sutured over the cut ends of the rib. This offers a protection to the tissues and a relief to the patient

from the effect of the roughened ends of the rib irritating the tissues.

Second. Always suture the skin to the muscle on both sides of the incision. This will prevent an infection of the tissues and also give a larger opening for drainage.

Third. Excise the intercostal nerve. This will prevent the painful neuralgias that frequently follow this operation.

Fourth. Draw a split tube through a pad of gauze and suture each half to the gauze. This will avoid the danger of the tube dropping into the cavity and at the same time avoid the irritating and painful effects of a safety-pin, which is usually used for the same purpose.

DR. WM. M. PERKINS. When I have none of the special instruments, I use scissors, which are as good as the costectome, though not as quick. In the scissors method we immobilize one blade against the edge of the rib and scratch the rib with the sharp point of the other blade perhaps 20 or 30 times. It gives us a very clean cut. I infiltrate over the centre of the rib, cut down to bone and inject the nerve with a one or two per cent solution of cocain. The operation is very easily and quickly done under local anæsthesia.

DR. G. F. PATTON. I have hesitated to intrude into a surgical discussion, but as our surgical friends seem to speak only of quinin for internal administration in empyema, I cannot refrain from calling their attention to the value of sulphide of calcium in all conditions characterized by the formation of pus, as in liver abscesses, empyema, furunculosis, etc., etc., and would suggest a trial of this drug after operating for pyothorax.

DR. OECHSNER (in closing). I thank the Society for the very liberal discussion of my paper. In answer to Dr. Gessner, I would say that aspiration before resection is not necessary, as the pleural adhesions are usually firm and there is no danger of sudden edema occurring, as is sometimes the case in serious accumulations. In answer to Dr. Allen, I will say that he is perfectly correct in using a large needle, and that a sharp one is essential, as with a dull needle the parietal pleura is pushed forward and the cavity not entered. Rib resection is not absolutely recognized as the method of treatment par excellence. Koplik, in the latest edition of his work on Diseases of Children, speaks

of it, I believe, as one of the methods of treatment. At any rate, I think he gives intercostal incision more prominence than it should have. In reference to the respiratory exercise spoken of by Drs. Allen and Danna, in the use of the James bottles, etc., I might say the best plan is to get the little patients out of bed as soon as possible, and, as it is the natural tendency for a child to "holler" and make a noise, the lungs will become inflated. Dr. Butterworth's remarks as to the early recognition of empyema and early aspiration for determining the same are very important. This impressed itself in one of my cases of double empyema following double pneumonia. Dr. Danna's plea for the general practitioner is very nice, but he has the advantage over the consulting surgeon relative to a particular case, because he has, in the absence of classical science, the picture of a pneumonia and its failure to terminate, as it usually does and should. A case unusually prolonged frequently means pus. His plea is good and partially right, but not totally so. The physical examination means the examination of the whole chest, and which, if thoroughly done, will reveal an encysted empyema. Irrigation generally is bad. Many of the fibrinous flakes spoken of by Dr. Danna will be released at the time of operation; others will disintegrate and pass out. Make a hole big enough in the chest and the flakes will pass out. Necrosis of the rib is spoken of in the older books; it has never occurred in any of my cases. The transverse periosteal incision spoken of by Dr. Jacoby is very nice, but it is all unnecessary and takes up too much time. The ordinary operation of rib resection for empyema can be done in less than five minutes. I never cut the intercostal nerve, for I do not think it is necessary. The flaring drainage tube suggested by Dr. Parham I use regularly. In reference to Dr. Perkins' remarks, I will say that in children we do not use the infiltration method, but rather a general anæsthetic. I have tried rib resection with the scissors when I had to, but find that I lose valuable time. Success is often dependent upon rapidity of work, if in keeping with the work being well done. I have had no experience with calcium sulphide, as suggested by Dr. Patton, but think it would be a good thing to promote the coagulability of the blood.

DISCUSSION OF DR. VAN WART'S PAPER.

DR. E. D. MARTIN. I would like to say something of this patient, in that her history is absolutely unreliable. She has been a patient of mine for the last twelve years, when I first treated her for yellow fever, and lately for an abortion. Four years ago it became necessary to perform a hysterectomy to save her life because of hemorrhage. After this she began the use of morphia, taking two years ago 60 to 90 grains daily or four to six ounces of laudanum. At times she may have used cocain. She was finally treated and apparently cured by the Keeley Treatment. Later she began to drink from a quart to a gallon daily, one barkeeper saying that she had taken twenty absinthes a day. Last winter she suffered a second attack of alcoholic neuritis, with relapse. Lately she has been unable to obtain any liquor, by the orders of her daughter. As to the diarrhea, I have seen no attacks, and prior to entering the hospital she seemed to be in a stupor most of the time. Her daughter said that she had used some preparation for cleaning furniture, and it looked to me like an erythema with peeling of the skin, with return to the normal color. It seemed to be an acute dermatitis and not the eruption of the disease, according to the little of the disease that I know. From my limited knowledge of pellagra and my more intimate knowledge of the patient I am inclined to believe that this is not a case of pellagra.

August 9. Patient has returned home; saw her to-day; is quite well, with exception of pain in the legs, the remnants, in my opinion, of her neuritis; is doing very well.

DR. HUMMEL. I feel a certain amount of interest in the case the Doctor has just reported, as I saw the patient several months ago, when she was suffering from a most pronounced attack of polyneuritis, of alcoholic origin. About the polyneuritis and its causation there could be absolutely no question. This was in March of this year. I saw the case once at the request of Dr. Denigre Martin. Now, what has transpired since, and what the nervous manifestations are at present in the case, I am in no position to say. However, I have no hesitancy in saying that the history of polyneuritis in this instance and the apparent persistence of several phases of this affection till now is not at all convincing if adduced to prove, or assist in proving, this case to be one of

pellagra. In none of the cases I have thus far seen was involvement of the peripheral nerves conspicuous. And very few writers mention such involvement, and then only to a slight extent.

DR. BASS. The diagnosis of alcoholic neuritis from the history of alcohol and drinking seems perfectly clear, though the recent appearance of pellagra is also reasonable. The eruption is characteristic in pellagra and pellagrins, and all patients have some explanation for the eruption. In the matter of the history of this patient, she volunteered the information and it was not brought out by questioning on our part. She thought she was badly salivated, due to the calomel which she had taken several days previously. The stomatitis was corroborated by her. Then the eruption, with a history of it, appearing a day or two after the use of some irritant, reaching its maximum in about two weeks and with a decline and a cure in two or three weeks more, is in keeping with pellagra. The absence of corn-eating might be explained that all the whiskey consumed by her was not of the rye variety. Alcoholism predisposes strongly to pellagra. In this case no one has a right, according to literature, to diagnose it as one of pellagra. Pellagra is pseudo-pellagra when there is a negative history of eating corn. The strong point in this case is the symmetrical eruption, with dirty skin, smutty in character, with wrist band, etc. If it is not pellagra, then what is it?

DR. HALSEY. By invitation I saw this case especially in reference to the stomatitis. I have seen the same in other intestinal conditions; and as to the diarrhea which came on, passed off and returned again, I think was due to hepatic cirrhosis. On percussion the liver was found to be small, and I am of the opinion that the diarrhea was due to cirrhosis of this organ and chronic gastritis.

DR. VAN WART (in closing). I am glad that this case has brought out so much discussion. Dr. Bass and I saw her on the day of admission, and all the information obtained was volunteered. Great care was used to ask no leading questions. The skin eruption with the symmetrical distribution on the backs of the two hands, with the band around the wrist and the isolated patches over the olecranon processes did not look as if the eruption could have been the result of the use of some irritant. Dr. Menage examined the patient carefully and stated most positively in an-

swer to my questions that no irritant could produce an eruption similar to the one this patient presented, and that it seemed to him to be a case of pellagra. In regard to the alcoholic neuritis, when the patient entered the hospital she was able to walk; it would seem strange that a patient who suffered from an alcoholic neuritis in March should continue the use of alcohol, according to the statements of her physicians, in large quantities, and should recover sufficiently to walk around in June. Cases of alcoholic neuritis when once they are started are progressive, and, unless the alcohol is withdrawn, do not improve. My experience has been that even with early cases the withdrawal of the alcohol does not stop the disease, but it continues to run its course. It is comparatively easy to explain any disease having a multiplicity of symptoms with a separate diagnosis for each individual symptom, and in this case we have offered the following explanations: The alcohol, to account for the nervous symptoms; calomel, to account for the stomatitis; a suggestion of alcoholism and cirrhosis of the liver, to account for the intestinal symptoms, and an irritant, to account for the skin eruption. It was much more logical, in view of the fact that the dermatologist who examined the case says that the skin eruption was not that of an irritant, and that the symptoms had not grown worse under the action of the alcohol, but grew worse when it was stopped, four weeks ago, to conclude that the symptoms are due to one disease. It would seem strange that one patient should have a number of symptoms which require a separate diagnosis to explain each symptom. The future history of the case will be of great interest; but, for the present, it remains one of pellagra; perhaps more properly called, as the patient denied the use of corn products, pseudo-pellagra.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Progress of Medical Education.

A careful reading of the Report of the Fifth Annual Conference of the Council on Medical Education of the A. M. A. gives much food for thought. It embraces the comprehensive presentation of each of the branches taught in the best medical colleges in the United States. The material for the report has been drawn from representative educators and scientific workers, selected among well identified colleges of standing and with Government or State organization.

The aim of the Council has been to strike a plan for a curriculum which will be standard for medical schools in the country and which will satisfy the methods of education of the recognized universities abroad.

There is much reason for gratification at the result of the last Conference of the Council, particularly as it represents a consensus of thought, seriously directed at meeting the average means of the schools in this country. The report clearly sets forth the needs of each department of instruction and demonstrates the method of arriving at the ways and means of satisfying a concrete system of education for the medical student.

In the first place, the intending medical student hereafter must come to his special training with a foundation of scientific education, derived from one or more years of work in chemistry, physics or biology, and with a reasonable knowledge of the modern languages essential for following medical progress. No stress is laid upon the necessity for a college degree, while no criticism is offered against those universities requiring such a preliminary.

The wisdom of this is apparent—for the average youth has neither the time nor the means to spend in such preparation. On the

other hand, the incentive to a broader preparation is provided in the endorsement of combined courses in universities whereby a degree in the arts and sciences may be acquired contemporaneously with a medical degree—in six years, the first two spent in purely academic work and the last four arranged so that the first two years in medicine may be taken with last two college years, and the final two years arranged for strictly medical work.

Most of the Report of the Council deals with the specific method which should be followed in the equipment and teaching of the laboratory and clinical branches of a medical course, and the medical man of to-day must feel satisfied with the proposed plans.

Two features of the meeting of this Council stand out, however, for special notice, and an emphatic commendation should be given by all of us. The first is the strong plea for uniformity in the requirements of State Examining Boards. The broad charge is made that most Examining Boards encourage a minimum standard of preliminary education, and have made no effort to stimulate a high standard. The South is particularly charged with this dereliction. Some Boards, on the other hand, have even furthered the work of the A. M. A. Council by making a proper preliminary education essential to a qualification of a degree, and without such preliminary education the degree may not be registered. But we cannot expect to accomplish an entire revision all at once, nor until the men composing these State Boards are themselves educated to the necessity for better educated medical graduates. The demand in some States, and the comparison among graduates themselves, will act as an education. Already the subsidiary schools throughout the country are beginning to rise to the demand for a higher standard in their methods and in their results.

The lack of a proper conception of the scope of medical education is again emphasized by the second point of note in the report, for which we believe much should be said—and this is embraced in the report of the sub-committee on "Hygiene, Medical Jurisprudence and Medical Economics."

Most medical graduates look on these subjects in a medical curriculum (if they find place there at all) as things to be endured, disposed of as quickly as possible and then forgotten.

There has never been submitted to a professional audience so

strong and specific a plea for a place for these subjects in the medical school curriculum as is set forth in the report we are discussing. Any one who reads must feel that the educated medical man of the future will be the one who knows the prevention, rather than the cure, of the disease. More than one argument is presented to urge the physician to take his place as a sanitarian, and not to yield this to men who have no place in the guild. The expert-medical is held up to ridicule. Do other professional experts suffer so, contumeliously? Health officers are discredited, and the public is not educated, often no more so is the health officer himself.

The desideratum must be provided, and every medical college of standing should aim at educating the students and its public in the simples of hygiene and their corollaries.

The crystallization of a perfect system of medical education is still utopian, but we have much to be thankful for, that the wise men have been willing to get together and to give us the chance of following in so clear a text just what they have done.

Communications.

APPEAL TO THE MEDICAL PROFESSION OF THE SOUTH AND WEST.

Up to the present time there has not been a concerted effort made to collect and preserve historical data in regard to the origin, evolution and personnel of our profession in this part of our country. The result of this delinquency has been the total loss of much material that should have been preserved, especially pertaining to medical schools and societies, and biographical matter in connection with the practitioners and teachers of medicine of by-gone days. A good deal of material of this character is still obtainable if a systematic effort is made to locate and preserve it. It is in the possession of individuals, families and private libraries, and will eventually be lost. *The Western Association for the Preservation of Medical Records* was organized in May, 1909, for the purpose of collecting the historical and biographical records of the profession of the West and South. We wish to preserve anything and everything pertaining to Western medicine and medical

men, and are anxious to enlist the active help and support of every member of the profession who is in sympathy with our aims. We want every one to become associated and identified with the work of our Association. There are no fees or obligations of any kind. We have made arrangements with the Lloyd Library, Cincinnati, O., for the proper housing of the material collected. The latter will be systematically arranged, catalogued and properly preserved, so that it can be made available for research work. We are particularly anxious to obtain:

1. Medical journals published in the West and South prior to 1880.
2. Medical books and pamphlets written or published in the West and South.
3. Manuscripts and autographs of early physicians.
4. Old diplomas and other documents of a medical character.
5. Proceedings of medical societies.
6. Reports of hospitals and other medical institutions.
7. Catalogues and announcements of Western and Southern colleges of all "schools."
8. Biographies and portraits of Western physicians.
9. Information and material of any kind pertaining to medicine and medical affairs in the West and South.
10. Curios of a medico-historical character.

All contributions should be sent in care of the Librarian. In view of the fact that we are performing a labor of love, and have no funds, our friends and associates will readily understand why all contributions sent by express or freight should be prepaid, so that no expense may accrue to the Association. The necessary expenses of the Association are at present being met by voluntary contributions of its organizers.

May we not count upon *your* active help and support? We would like to hear from every member of the profession who is interested in the proposed work.

C. A. L. REED, M. D., Chairman.

OTTO JUETTNER, M. D. Secretary.

A. G. DRURY, M. D., Librarian,

710 W. Eighth Street, Cincinnati, O.

A CORRECTION.

ARCADIA, LA., Sept. 7, 1909.

Editors NEW ORLEANS MEDICAL AND SURGICAL JOURNAL:

DEAR SIRS—In your JOURNAL for September there appeared a statement to the effect that the injunction in the case of the State Board of Medical Examiners against Dr. B. L. Hodge had been dissolved and that he had been permitted to resume the practice of medicine. This is an error which I desire to correct. The injunction was sustained and perpetuated by the court, and Dr. Hodge restrained from practicing medicine in Louisiana until he has obtained the certificate of the Board of Medical Examiners, as required by Act 49 of 1894.

I hope you will give this a place in the next issue of your valuable JOURNAL, in order that the facts may be known. Yours very truly,

(Signed) F. M. THORNHILL, M. D.,
President Board of Medical Examiners.

ERRATUM.

On page 960, June, 1909, issue, by a transposition of cuts in Dr. Tom Williams' article on "Hysteria, etc.," on line 17, "e-i-r-a-M" should have read e-i-r-a-M; on line 20 "M-a-r-i-e" should have been printed as it appeared on line 17.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

DIAGNOSIS AND THERAPEUTICS OF PYELITIS IN PREGNANCY. W. Stoeckel (*Zeit. f. Gyn. Urologie, Bd. 1, H. 1, 1908*) describes three cases of pyelitis in pregnancy, and comments on the diagnosis and treatment. He says that there is no doubt that pyelitis occurs in pregnancy as the result of the condition. The obstruction

of the ureter plays a marked part in its causation. In general pure cultures of the colon bacillus are found in the urine from such kidneys. The condition occurs much more frequently on the right side and is much more severe than on the left. The etiology is not absolutely clear. The manner of the advent of the colon bacillus, whether by ascending infection from the bladder or by wandering of the germs from the intestine into the blood, cannot as yet be determined. The pyelitis is not the result, but the cause, of the general infection. There are three locations in which the ureter may be compressed: One at the pelvic entrance, the second where the ureter passes over the linea innominata, the third where the ureter enters the bladder wall. There is a typical pain on pressure at McBurney's point. By catheterization of the ureter there is found, at a distance of ten to thirteen centimeters from the bladder, a location where the catheter is not allowed to pass, and this is just beneath McBurney's point. The first symptoms may be pain in the back and side. The difficulties of diagnosis vary; it is easy when there are bladder symptoms, difficult when these are absent. Lesions of the gall bladder and infection may be suggested by the symptoms. In light cases rest in bed may effect a cure. In severe cases with infection abortion may be necessary; catheterization of the ureters and irrigation are valuable. Nephrotomy and formation of a kidney fistula may be needed.—*Amer. Journ. Obst.*

MILLER.

Department of Nervous and Mental Diseases.

In Charge of Drs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

PENMANSHIP STUTTERING.—(*N. Y. Med. Journ.*, 1909.) Scripture described one case to illustrate a disease of the same nature as stuttering in speech, the difference lying in the fact that the man stuttered in his penmanship and not at all in his speech. The patient was a teller in a bank and explained that he had suffered so much on account of his writing that he had been passed over in promotions and had even thought of giving up this occupation, that a nervous fear seized him the moment he took up a pen. Be-

fore beginning to write he would make a number of nervous strokes with the pen, without touching the paper. There were cramps of the muscles of action resulting from a compulsive nervous fear that was aroused whenever the action was contemplated. This was the first case of the kind that Scripture had ever heard of. The therapy was based on the theory of stuttering that had substantiated itself for speech. The stutterer spoke in a peculiar voice that betrayed itself to the practised ear even when he did not stutter. This voice was connected with his impulsive idea, namely with the thought that he was going to stutter. To cure the trouble he was taught a form of speech that was entirely new to him, the speech of normal persons. As soon as he understood how normal persons inflected their voices with rising and falling melody and could imitate them, he could speak without stuttering. His voice was changed from a harsh, cramped one to a melodious easy one. Applying this principle to the penmanship stutterer, he sought to impart thought by written characters that would involve graceful, easy movements of the arm and hand. This method had to be entirely different from penmanship and yet capable of gradual change to it. Chinese writing brushes were bought, making it possible to use a free and graceful movement of the arm. A new alphabet was devised. It was constantly impressed on the patient that he was writing in an entirely new way; as long as he had this feeling, he would be free from the compulsive idea. The thought of acting in a new way was sufficient. The patient was progressing steadily toward a good cure

VAN W.

VASO-DILATORS AND HIGH BLOOD PRESSURE.—Matthew (*Quarterly Journal of Medicine*, vol. 2, No. 7) gives a description of the result of his observations on the effect of the various drugs with vaso-dilator action, as observed with the sphygmomanometer; the instruments used were the Lockhart-Mummery and the Martin modification of the Riva Rocci apparatus, with the broad cuff. The drugs used were nitroglycerin, sodium nitrite, potassium nitrite, erythrol tetra-nitrate, mannitol hexa-nitrate and cobalto-nitrite of potassium. He found that the drugs in tablet form, notably nitroglycerin and erythrol tetra-nitrate, were without any action. The nitroglycerin produced the promptest action and is recommended in

doses of two minims with one per cent solution every half hour, if a rapid effect is desired. Tolerance is soon gained and the drug is consequently only useful where an immediate and transient effect is desired. The sodium and potassium nitrites, practically the same, produced a slower action in five minutes, which lasted about two hours.

The most suitable dose is 2 grains. The erythrol tetra-nitrate produced its effect in five and one-half minutes; this lasted for about 6 hours; the dose most efficient was $\frac{1}{2}$ to 1 grain. The mannitol hexa nitrate produced its effect in 12 minutes; it lasted about 6 hours; the dose used was 1 grain. No tolerance was gained to the last three mentioned drugs. He also observed that, in certain cases, the drugs produced no lowering of the blood pressure; this was particularly true in advanced cases of renal disease. It was only in the early stages of renal disease that the drugs produced the most marked effect. The observations were interesting as showing the uselessness of ordinary tablets of nitroglycerin and also its transient effect, and that it is necessary for the purpose of producing any prolonged effect to use some one of the other preparations. The maximum fall of blood pressure with none of these drugs exceeded an average of 35 mm. of mercury.

Department of Internal Medicine.

In Charge of Dr. E. M. Dupaquier, New Orleans.

INTERESTING CASE.—The following notes were handed to this department for publication from authentic source:

On July 26, 27 and 28, 1909, Mary Joseph, a Syrian woman, age about 39, peddler, weighing about 160 pounds, presented all the symptoms of hepatic colic and was treated accordingly.

On July 29 paroxysm ended.

August 3 she was intensely jaundiced, feeling a little weak, but otherwise well, walking about.

August 5, was taken with high fever, delirium, wanted to get

out of bed during the night. At 6 a. m. vomited about two feet of a tapeworm. At 7 a. m. no tenderness about the gall-bladder region or abdomen. Temp. 100; pulse small, rapid, 130; general asthenia, lying limp on her right side; depressed, somnolent; no dyspnea. In the evening she died, with high fever and convulsions.

NOTES OF AUTOPSY. Left lung, pneumonitis and pleurisy, marked adhesions; right lung, lower lobe shows acute pneumonic condition, rest of lung normal.

Heart normal.

Liver, marked hepatitis, liver adherent all around the gall-bladder; extended and oblong; wall much thickened, showing marked cholecystitis.

Right kidney, normal, capsule peels readily; left kidney, slightly larger than right; nothing abnormal.

Spleen, normal; very small.

Little urine in bladder, not enough to collect specimen.

Stomach opened, normal. Search made in alimentary canal for tapeworm, of which piece had been vomited; none found.

Diagnosis. Obstructive cholecystitis and double acute pneumonitis.

ASTHMA.—Primary factor: Constitutional neurotic predisposition; hypersensibility.

Secondary factor: Toxic material in blood from certain food-stuffs, impaired digestion, alcohol, lead, uric acid. Infections, namely, post-partum, malaria, syphilis, tuberculosis, bronchitis, pneumonia, broncho-pneumonia, pertussis, measles, la grippe, angina, articular rheumatism, pleurisy, enteritis, diphtheria.

Insufficiency of the liver. Insufficiency of the kidneys. Uremia.

Disturbed internal secretions, namely, thyroid, ovarian. And, childhood and the thorough examination of the whole body in the intervals of apparent health, between the paroxysms, demand the greatest care. (Abstract from "Du rôle de l'intoxication dans la causalité de l'asthme. By Dr. Elie Percepied (du Mont-Dore). *Journal de Médecine et de Chirurgie Pratiques.*

Department of Ear, Nose and Throat.

In Charge of A. W. deRoaldes, M. D., and Gordon King, M. D.
New Orleans.

THE FAUCIAL TONSILS AND THE TEETH.—In the June number of the *Journal of the A. M. A.* appears a paper on this very interesting and important subject by that indefatigable student and notable author, Dr. G. Hudson Makuen, and his views are well worthy of dissemination.

He calls attention to the fact that tonsillar disease is so insidious in its origin that it often goes unrecognized until the damage to the neighboring organs and even to the general health is irreparable. That when a tonsil becomes diseased, not only does it lose whatever function it may have in the body, but becomes a constant menace and source of disease to other organs, among these the teeth. The tonsil should always be removed when diseased, but the teeth should be preserved and repaired to carry on the important function they are called upon to perform. The teeth are affected by diseased faucial tonsils in three ways. First, they interfere with the general health of the patient and consequently with the proper nourishment and development of the teeth. Second, they contribute very largely to the local infection of the teeth by the numerous bacteria that propagate within the diseased crypts. And, third, they interfere by pressure, when enlarged, with the perfect alignment of the teeth and with the normal development of the maxillary bones.

The teeth becoming diseased, lead to imperfect mastication, foster the development of bacteria within the mouth and undoubtedly give rise to infections of the lymphatic system. Carious teeth may also in their turn cause tonsillar disease, and thus a vicious circle is formed between the teeth and the tonsils which can only be broken up by the removal of the offending tonsils and correction of the dental disease.

Summarizing the result of his observations, the author comes to the following conclusions: The faucial tonsils and the teeth are in close approximation and are alike subject to disease and degeneration. Diseased tonsils and teeth are locally and systematic-

ally unhygienic. Secretions from the tonsils may infect the teeth, and, contrariwise, the tonsils may be infected by the teeth.

Diseased tonsils and teeth cause headache, earache and facial neuralgia, and they become a direct source of infection to the glands of the neck and through the different lymphatics to the general respiratory and circulatory systems. Hypertrophied faucial tonsils often become so large as to affect the hearing, the circulation of blood, the nerve supply of the face and head and the normal development of the alveolar arches.

The teeth serve important purposes, but the exact function of the tonsils has not yet been demonstrated.

The importance of preserving the teeth is fully recognized, but the diseased tonsil is not worth preserving, because it has lost its usefulness and become a menace to the human economy.

The only rational remedy for diseased tonsils is total extirpation.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

MINUTES OF 1909 (*Continued*).

The Secretary read the subjoined report of the Committee for the Relief of Major Carroll's Family. Also report of Committee on Advisability of Establishing a Journal of the Society.

REPORT OF COMMITTEE ON THE RELIEF OF THE FAMILY OF DR. JAMES CARROLL.

To the Louisiana State Medical Society—Your Committee on the Relief of the Family of Dr. James Carroll beg to report the following:

When Dr. Carroll died in Washington, October 7, 1907, of heart disease, brought on, as officially stated, by an attack of yellow fever experimentally incurred while in the service of his country, he left a wife and seven minor children. The youngest is now three and the oldest seventeen years of age.

Dr. Carroll left no property, except a house, which was mortgaged to the extent of its selling value—seven thousand five hundred dollars (\$7,500). Mrs. Carroll was unable to earn a living for her children, being in delicate health.

In 1907 the American Public Health Association appointed a committee to urge Government relief for the relief of Dr. Carroll. That committee of three, composed of the Chairman of your committee, Major M. W. Ireland, M. D., of Washington, D. C., and Dr. Eduardo Liceaga, Health Officer of Mexico, did not meet, but its members urged the passage of a bill in Congress providing for the payment, monthly, to Mrs. Carroll, and to the widow of Dr. J. Lazear, who died in Cuba of experimental yellow fever while a member of the Yellow Fever Commission, the sum of one hundred and twenty-five dollars (\$125.00). The bill passed, and Mrs. Carroll and Mrs. Lazear are now receiving each \$125 per month.

Your committee learns that Mrs. Carroll is also supporting the aged mother of Dr. Carroll, and this small pension is barely sufficient to secure for this family of nine persons the bare necessities of life.

A movement is on foot to pay off, by subscription, the mortgage of \$7,500 on the Carroll home.

The sum raised by the Carroll Fund promoters, according to the *Journal of the American Medical Association* of April 24, was, on that date, \$3,073. This amount is contributed by individuals, institutions and societies. There is still lacking \$4,500 to complete the sum needed to raise the mortgage.

Your committee recommends the contribution by this Society, out of the general treasury or by subscription of its members, or by general subscription through the Society, a sum which shall in a measure represent the importance of Dr. Carroll's labors for humanity, especially to the people of the South and the prosperity of our State, and which shall also be consistent with the dignity of the Louisiana State Medical Society.

Of the immortal Yellow Fever Commission of the United States Army, composed of Reed, Carroll, Lazear and Agramonte, all are dead save Aristides Agramonte, of Cuba; and of the families of the Americans, that of Dr. Carroll alone is inadequately provided for.

Your committee does not feel it necessary to make an extended appeal, but regards the facts alone as the most appealing argument in favor of its recommendation.

Respectfully submitted,

(Signed) QUITMAN KOHNKE, M. D., Chairman;

C. Z. WILLIAMS, M. D.,

W. J. DUREL, M. D.

REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS.

DR. F. A. LARUE, Secretary of the State Board of Medical Examiners, read the following report:

To the Officers and Members of the Louisiana State Medical Society—At the request of Dr. Thornhill, President of our Board,

I have prepared this report, which it is my pleasant duty to present to the Society.

Since the last meeting, held in Alexandria, the Legislature met, and, as you know, enacted some amendments to our medical law.

Before dwelling on the legal changes I will report on the meeting held by the Board last spring.

We had 153 applicants (136 whites, 17 colored) for the certificate to practice medicine. Between 8% and 9% of the whites and 35% of the colored failed.

As to the result concerning the midwives, of the 19 candidates (8 white, 11 colored. Note the excess of colored applicants), 7 whites and 8 colored passed.

At our last October meeting 21 physicians (18 whites, 3 colored) stood the examinations. Seven whites and 1 colored failed.

Availing ourselves of the discretionary powers invested in us by the recent legislative amendments, we granted four permanent certificates to practice medicine in this State without examination.

Ten candidates (8 whites, 2 colored) applied for certificate to practice midwifery. All were successful with the exception of one white.

A cursory review of the principal amendments, with their resulting effects, will, I know, prove of interest. As you are all aware, there exists at present in Louisiana three separate and distinct Examining Boards—the Allopathic, the Homeopathic, and the Osteopathic.

We all remember the attempt made to create a single or mixed Board, which was successfully combated. In our opinion, the mixed Board is not a desideratum.

I am reliably informed that in Pennsylvania they are trying to get a single Board Practice Act, but that it has been so mutilated that all parties will join for its defeat.

We, the Allopathic Board, have retained our authority, and are still to demand of candidates what we consider proper credentials before they can enter the ranks in this State of what is generally known as the regular practitioners.

Some States have mixed Boards, and one of them, our sister State of Texas, has advanced, among other reasons, that her Board cannot grant the possessor of our certificate a license to practice in Texas without examination, because Louisiana has separate Boards, and not a single or mixed Board, as they have.

This leads me to speak at once on the so-called subject of reciprocity, to which I personally am a convert, but in a modified and restricted sense.

In the latter part of September, 1908, the Louisiana State Board of Medical Examiners met in special session. New rules and regulations were formulated. The medical schools were graded according to the best information at our command.
appended:

Although all those various proceedings appeared in part in the lay press and *in extenso* in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, and in the *Journal of the American Medical Association*, we nevertheless deem it our duty to append them to this report. But what is of equal interest to our profession in this State is to know what attitude the other State Boards have taken in regard to the Louisiana Board certificate.

We decided to accept those certificates of examinations of State Boards whose standard is equal to ours, provided applicant held at the same time a diploma from a medical college recognized by our Board. It devolved upon me, as Secretary, to ascertain what these same States were willing to do for our licentiates. After quite an amount of correspondence, I can give you to-day an idea of how matters stand.

On the fifty-two Examining Boards, including Hawaii, Philippines, Porto Rico and our States, we accept at present the certificates of twenty-eight different States.

The Boards which accept our certificates, so to speak, unconditionally, are Maine, Nevada, Virginia, Nebraska, Wisconsin and Colorado.

Those that do so with restrictions are Minnesota, Indiana, North Dakota, Michigan, Kentucky, Missouri and New York.

Those that have so far refused to accept our certificates are Connecticut, Vermont and Texas.

We are soon to hear definitely from Maryland, District of Columbia, South Carolina, Kansas, Ohio, Illinois, Oklahoma, Utah, New Jersey, Iowa, Wyoming and West Virginia, and I am led to expect a favorable reply from most of these States.

We received no reply from Delaware, New Hampshire, and a vague one from Mexico.

For more explicit information, we would advise communicating with the Secretary of the respective Boards, giving in detail the credentials held by applicant. The Secretary of the Louisiana Board will cheerfully furnish the name, etc., of those officials to anyone contemplating removal to another State.

Now, Texas, for instance, a neighboring State, does not accept our certificates. It is possible it may reconsider its present attitude towards us at their next meeting in June. I cannot say what action the Louisiana Board will take towards Texas, but I presume that if the Texas Board or any other Board maintain their standard of examination we will continue to accept their certificate, with the proviso mentioned in our printed rules and regulations.

Oklahoma, the new El Dorado, has recently come to the front with a sound medical law, and it is quite probable that at our approaching meeting, to be held this month, this new State will be listed on our so-called reciprocity list.

The midwives are being gradually brought into line to properly

register, so that we may know who among them are legally qualified. This is of great importance to the community.

I am fully aware that many, if not more of the midwives have not toed the mark as yet, but with the assistance of Dr. Estopinal, Secretary of the State Board of Health, and Dr. Théard, Secretary of the City Board of Health, by next year we hope to have all the qualified midwives and doctors registered.

We still have a number of illegal practitioners going the rounds of this State, to the detriment of both patients and our professional brethren.

I am happy to state that, with the co-operation of our Parish Societies generally, through their Secretary, we have been able to either chase some of the vampires away or to prosecute them, usually with success.

Those of you who are familiar with the recent amendments know that in the cases of fines imposed on violators, Section 14 of the Medical Act specifies that "The said fine shall be divided equally between the public school fund of the parish in which said offense may have been prosecuted and the State Board of Medical Examiners."

Dr. Thornhill writes: "I have heard of nine indictments in this part of the State for violation of the medical law, the most of which are still pending. One or two have been convicted, and as many noll prossed. These are cases that have occurred in parishes adjoining my own. As to what has been done in other parishes I have no way of knowing. The law, in the main, I am sure, has already had a salutary effect, and if the profession in the several parishes of the State will but contend for the enforcement of the law, illegal practice will soon come to an end. In one case of conviction in Claiborne Parish, State of Louisiana vs. Dr. Purnell Bond, a penalty of \$50.00 and costs was imposed, one-half of which belongs to us (the Board), and the District Attorney informs me that he has instructed the Sheriff to turn it over to us (the Board)," which, I will add, has been done, the Sheriff retaining his fee of \$5.00. No restraining order or injunction was issued.

This case was handled by the Hon. W. C. Barnette, District Attorney, before Judge B. F. Edwards.

Dr. J. G. Martin reports that a negro by name of E. D. Vincent was arrested about a month ago by a policeman charged with practicing illegally. The City Judge fined him \$100.00. A few days ago the District Attorney filed bills of information against three men for practicing without a license—two colored, one white—two of whom were arrested and are under bond; the third evidently got wind of it and flew the coop. Dr. Martin further reports that he is glad to say that in his parish they have a District Attorney who considers it his duty to go after every one who is practicing without a license.

As the law reads, it is the duty of the District Attorney to pros-

ecute any violator of the medical law, and I have it from his Excellency, Governor Sanders himself, that he is at our beck and call to help us in enforcing that part of the statute.

Dr. C. H. Gelbke, President of the Jefferson Parish Medical Society, as authorized by said Society, took up the matter of one A. C. Fowler, practicing medicine in defiance of the law, with the District Attorney, Hon. L. H. Marrero, Jr. The latter advised the doctor to go before the grand jury with witnesses. I, among others, was summoned and appeared a few days ago before the grand jury. The grand jury has since reported, with no mention of the Fowler matter.

As for the Parish of Orleans, we have only one case to record, and it is a notable one. It was attended to by Mr. Ernest T. Florance, attorney of the Board. I made mention of it in my supplementary report before at Alexandria (*vide* NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, May, 1909), but to-day I am able to say that the Supreme Court unanimously upheld Judge King's decision in the case of State Board of Medical Examiners vs. Williams. In this case Williams contended that the methods used by him did not constitute the practice of medicine under the statute prior to that of 1908. Both courts, however, decided adversely to that contention. There can be no question as to the statute of 1908 covering this point explicitly.

Before closing I wish to say that one of the valuable members of the Board, Dr. C. D. Simmons, of Baton Rouge, has recently moved to Oklahoma, and, as his term of office expired, it devolves on the Society to send the two names as required by law to the Governor for appointment. I would suggest that this be done at once, so that the Governor, if possible, may issue the commission to the new appointee, permitting this gentleman to participate in our deliberations which will begin on the 20th of this month and last for several days.

Trusting that my report will meet with your indulgent approval, I remain, yours gratefully,

(Signed) FELIX A. LARUE, M. D.,
Secretary and Treasurer.

Under the head of NEW BUSINESS, the several reports were taken up seriatim and disposed of as follows:

Reports of President and Secretary were adopted as read. In accordance with a recommendation of the Secretary, he was authorized to have copies of the amended By-Laws of the Society printed, after the report of the Committee on Review of same.

The Treasurer's report was referred to the Auditing Committee, and the following were appointed on the latter committee: Drs. J. J. Archinard (Chairman), Seemann and Leckert.

Report of Committee on Public Policy and Legislation was adopted.

Report of Committee on Medical Education was adopted and a copy ordered sent to the Council on Medical Education.

Dr. Callan spoke at some length on the work of this committee in the past and the influence that this body had exerted in elevating the standards of medical education, especially in this locality.

Some discussion arose as to the advisability of dealing specifically with the recommendation of the report relative to the advisability of holding a joint conference between the Examining Boards of Mississippi and Louisiana, but no definite action was taken thereon.

The report of the Committee for the Relief of Major Carroll's family being taken up, Dr. E. P. Archinard moved that this report be referred to the main body of the Society for final action as to the appropriation of money to the fund.

Dr. Charles Chassaignac moved that a committee be appointed to solicit subscriptions for the fund in question.

Dr. Dowling made a motion to the effect that \$1.00 be voted to the fund by the Society, as a means of showing our approval of the worthiness of the cause, and that individual members be solicited to contribute according to their inclination and ability. The Doctor called attention to the depleted condition of the treasury, and advised against establishing the precedent of appropriating large sums out of the Treasury for such purposes.

Several amendments and substitutes were made and offered, and some discussion followed the introduction of these motions.

Dr. Dupuy finally moved that the sum of \$150 be appropriated out of the Society's funds, and that individual members be invited to contribute whatever they might feel inclined to, to assist the fund. Duly seconded and carried by a vote of 20 to 17. On motion of Dr. Parham the action was made unanimous.

Report of the Committee on the advisability of establishing an Official Journal was adopted, and the proposition of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, contained therein, to continue publication of the transactions, was accepted.

The report of the Secretary of the State Board of Medical Examiners was adopted as read.

On motion of Dr. Seemann the following resolution was adopted:

"Be it resolved, That it shall be, and is the right, of any member of the Louisiana State Medical Society to attend the sessions of

the House of Delegates, to hear its proceedings, without, however, having the privilege of the floor or any right of participation in its business."

On motion of Dr. Eustis, the Secretary was instructed to notify the General Session of this resolution at once.

Adjournment was then taken to 11 A. M., May 5.

MAY 5, 1909, 11 A. M.

DR. CALLAN presided.

Members present: Drs. Abshire, J. J. Archinard, P. E. Archinard, Ballowe, Batchelor, Chassaignac, Colvin, Dowling, Callan, Dupuy, Hargrove, Hummel, Leckert, Lazaro, Lloyd, Miller, Montegut, Newman, Parham, Patton, Ragan, Roy, Seemann, Simmons, Thomason, Thibaut, Vidrine, Voorhies, Waller, Watkins, Willis, Younger, Caruthers, Sims, Godfrey, Eustis, Graner (37).

The minutes of the previous meeting were corrected and adopted.

Owing to a misunderstanding on the part of the Secretary regarding the resolution passed on the previous evening pertaining to the admission of members of this Society at large to the meetings of the House of Delegates, by which error said resolution was not brought to the attention of the Society the evening before, it was, upon motion of Dr. Parham, ordered that, in addition to the resolution passed last night extending to all members of the Society the privilege of attending the meetings of the House of Delegates without their being permitted to participate in the proceedings, that the main body be at once informed of said action. It was further ordered that Dr. Parham be appointed a committee of one to convey to the general sessions this message, with whatever additional explanations he may deem fit.

Dr. Chassaignac drew attention to the fact that the House of Delegates had now duly organized, and expressed himself as hereafter favoring insisting on the qualifications of those wishing to sit in the House of Delegates, according to the regular form.

Communications were read from Drs. E. M. Ellis, Solon Wilson and J. J. Robert, making direct application for membership in the State Society; from the Orleans Parish Medical Society, transmitting a resolution on the prevention of Ophthalmia Neonatorum, passed by that body, and copy of address of Mr. Dupre, Annual Orator; from the American Urological Association, regarding the

sterilization of criminals; from Dr. Dowling, Secretary Southern Medical Association, enclosing a resolution passed by that body relative to the conservation of forests and purification of water supply, etc.; from Dr. J. T. Clegg, President Arkansas Medical Society, expressing appreciation of his invitation to attend the meeting of the Louisiana State Medical Society; from the American Medical Association, requesting an authentic statement regarding the membership of the Louisiana State Medical Society.

These communications were disposed of as follows:

Individual applications for membership were referred to the Council.

Communication from the American Urological Association was received, but no action taken.

Communication from the Southern Medical Association was received.

Communication from Dr. Clegg was received and the Secretary directed to make appropriate answer.

Communication from American Medical Association was referred to the Secretary for answer.

Resolutions from the Orleans Parish Medical Society on Ophthalmia Neonatorum were ordered referred to the Committee on Conference with the Board of Health.

Address of the Annual Orator of the Orleans Parish Medical Society was ordered referred to the Committee on Conference with Bar.

On motion of Dr. Seeman it was ordered that the special order of business, when the House of Delegates should be convened at 4 P. M., to-day, be the election of officers.

On motion of Dr. Batchelor, a committee of three, consisting of Drs. Batchelor, Graner and P. L. Thibaut, was appointed to investigate the question of adopting by-laws for the government of the House of Delegates and to report at the meeting of the House this afternoon at 4 P. M.

Adjourned.

MAY 5, 1909, 4 P. M.

DR. CALLAN presided.

The following members were present: Drs. Abshire, J. J. Archinard, P. E. Archinard, Batchelor, Bel, Callan, Caruthers, Chas-saignac, Colvin, Dowling, Dupuy, Eustis, Godfrey, Granger, Graner,

Hummel, Leckert, Lazaro, Lloyd, E. D. Martin, V. A. Miller, Parham, G. V. Patton, Riché, Ragan, Roy, Seemann, Simmons, Sims, Thomason, Thibaut, Vidrine, Voorhies, Waller, Watkins, Williams, Willis, Younger (38).

On motion of Dr. Roy, the roll call was dispensed with, and the body proceeded to the election of officers for the ensuing year.

Dr. Seemann moved that the balloting be done in writing, that the two candidates receiving the highest number of votes on a ballot be transferred to second ballot, and that a majority of members present be required to elect. Carried.

Election of officers was then proceeded with.

(The result of the election was published in a previous issue of the JOURNAL.)

The Report of the Auditing Committee was read and adopted.

NEW ORLEANS, May 5, 1909.

To the President and Members of the House of Delegates of the Louisiana State Medical Society—Your Auditing Committee met and, after going over the report of the accountant, and in consultation with him examining the books of the Association, find that the auditor did his work in a thorough and conscientious manner and that the books of the Secretary have been kept well.

We would suggest that the Treasurer hereafter accept the suggestion of the accountant and enter the dues of different years in different columns, so as to avoid confusion in auditing.

Respectfully submitted,

(Signed) JOHN J. ARCHINARD, *Chairman*;
G. H. SEEMANN,
E. L. LECKERT.

The report of the Committee appointed by the Chair to draw up amendments to the By-Laws was read and adopted.

NEW ORLEANS, May 5, 1909.

To the House of Delegates, Louisiana State Medical Society—We, the committee appointed to offer suggestions regarding the Constitution and By-Laws to govern the House of Delegates, advise that the laws as recommended by the American Medical Association be adopted for this session, until we conclude to adopt other laws more suitable for our Society.

Respectfully submitted,

(Signed) E. J. GRANER,
J. M. BATCHELOR,
P. L. THIBAUT.

The report of the Council was read and adopted:

NEW ORLEANS, May 5, 1909.

To the House of Delegates—The Council, in meeting assembled, and after due consideration, recommend that the following be elected members of the Society: Dr. Solon Wilson, Bogalusa; Dr. E. M. Ellis, Crowley; Dr. James Y. Robert, Norwood.

Respectfully submitted,

(Signed.) ALLAN EUSTIS, M. D.,
Secretary of the Council.

In accordance with the latter report, Dr. Solon Wilson, of Bogalusa; Dr. E. M. Ellis, of Crowley, and Dr. J. J. Robert, of Norwood, were elected members of the Society.

On motion of Dr. Graner, the Secretary was voted an honorarium of \$500 and the Assistant Secretary \$50.

On motion of Dr. Batchelor, the Chair was directed to appoint a committee of five to draw up amendments to the By-Laws, and report at the next Annual meeting.

The Chair appointed Dr. E. J. Graner, Chairman; Drs. Parham, Batchelor, Thibault and E. D. Martin.

Dr. Chassaignac moved that a vote of thanks be extended Dr. Callan who presided at the sessions of the House of Delegates with such complete satisfaction to every member present. The members rose spontaneously in expression of appreciation for Dr. Callan's services.

On request of the Western Catahoula Medical Society, it was ordered that this Society be allowed to change its charter name to that of Lasalle Parish Medical Society.

On motion of Dr. Eustis, a committee of five was appointed by the Chair to promote the plan of organizing the various component societies throughout the State, into larger societies, to be known as District Societies, instead of Parish, Bi-Parish, etc., societies.

The Chair appointed as personnel of the committee Dr. A. C. Eustis, Chairman; Drs. Seeman, Dowling, Ellis and Sistrunk.

A suggestion was offered through the Chair by Dr. Martin that action be taken limiting members to reading of only one paper per member at a given annual meeting. This matter was referred to the Committee on Scientific Work, with the recommendation that such action be taken by that committee.

Adjournment was then taken to May 5, at 10 p. m.

WEDNESDAY, MAY 5, 1909, 9:45 P. M.

DR. CALLAN presided.

Members present, 21.

Dr. Walter Miller was elected an honorary member of the Society, on motion of Dr. Parham.

The minutes of the meeting held May 5 at 4 P. M. were adopted as corrected.

The President and Secretary of the House of Delegates were directed to draw up a report embodying the most salient matters acted upon by the House of Delegates during the several sessions, for presentation to the General Sessions.

Votes of thanks were tendered to the Chess, Checkers and Whist Club, Young Men's Gymnastic and Boston Clubs; the Medical Department of Tulane University; the New Orleans Polyclinic; Orleans Parish Medical Society and the Chairman of the Committee on Arrangement, for the various courtesies enjoyed by the Society during its meetings.

Dr. Parham, Committee of One to explain to the General Session that the meetings of the House of Delegates were open to the members of the Society, etc., reported that he had discharged his mission. Dr. Parham was thanked.

The addresses of Dr. Martin, the Retiring President, and Dr. Walter Miller, Annual Orator, were ordered published first.

On motion of Dr. Parham it was ordered that, at the next Annual Meeting of the Society, the House of Delegates holds its first session on the day preceeding the first day of the General Sessions of the Society.

Adjourned.

Medical News Items.

STATE LICENSES FOR PHYSICIANS.—One of our exchanges states that there are only five States imposing taxes on physicians—Virginia, Georgia, North Carolina and Louisiana. All but Louisiana have a fixed tax per annum; in Louisiana the tax increases with the income. Mississippi, Montana, Illinois, Florida and Texas formerly had a tax, but in each State the Legislature or legal process dissolved the law.

MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.—The Southern Medical Association will meet in New Orleans on November 9 to 11. Dr. G. C. Savage, of Nashville, Tenn., is the President of this Association. It is expected that a large gathering will be the result of this meeting.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The thirty-fifth annual meeting of this Association will be held in St. Louis, October 12-14, at the Southern Hotel.

THE ODONTOLOGICAL SOCIETY OF NEW ORLEANS gave Dr. A. G. Friedrichs, Dean of the Dental Department of Tulane, a supper at West End last month, when he gave a report of the meeting of the National Association of Dental Faculties which he had attended. During his absence Dr. Friedrichs also visited some of the Northern dental colleges.

GRADUATING EXERCISES OF THE HOTEL DIEU TRAINING SCHOOL FOR NURSES.—The graduating exercises of this institution were held September 9, and seven young ladies received their diplomas. Dr. E. S. Lewis acted on behalf of the faculty and directorate of the school in presenting the diplomas and medals. He spoke briefly on the possibilities and worth of scientific nursing as a profession.

INSANE TUBERCULOSIS PATIENTS TO BE ISOLATED IN TEXAS.—Bids were opened August 23 by the trustees of the insane asylum at Austin for the construction of two cottages for tuberculosis patients, for which the Legislature appropriated \$35,000. When

these cottages are completed the male and female patients suffering from consumption will be isolated from the rest of the patients, which now number about 1,400, and danger of further spread of the disease will be considerably lessened. The tuberculous insane can receive special treatment, and there will be an observation department for those who may be showing suspicious symptoms.

MISSISSIPPI STATE EXAMINATIONS.—The next Board examinations will be held at Jackson, October 12 and 13.

THE QUEEN ALEXANDRA SANATORIUM (under Her Majesty's patronage), which is to be opened early next autumn, is destined to rank high in the list of the national sanatoria of cosmopolitan Davos. But, though national, it will be unique in welcoming patients from all parts of the world, and not only from the Empire, but from the States, as it was founded for the benefit of all English-speaking nationalities, the only qualifications needed being evidence of medical suitability and of inability to meet the heavier cost of treatment at hotels or private institutions.

Dr. W. R. Card, for the past six years Assistant Superintendent of the East Mississippi Hospital, will be associated with Dr. H. M. Folkes as Superintendent of the Gulf Coast Health Resort at Biloxi.

Oregon, Washington and Idaho have joined forces in publishing a State medical journal.

The Southern Medical Journal, established by Snell Brothers, at Nashville last year, has become the property of the editorial staff.

Drs. Jelks & Jelks announce the suspension of their journal, which they established in Hot Springs about fifteen years ago. Arkansas now has a journal owned by the State Society.

PERSONALS.—Dr. C. M. Menville has been elected President of the Terrebonne Board of Health.

Dr. B. W. Smith, of Franklin, spent several days in the city last month.

Dr. S. W. Stafford has returned from Europe.

Dr. F. A. Larue is spending his vacation in the North and East.

Dr. H. D. Bruns has gone to Virginia for a short vacation.

Dr. C. E. Vedier, from Norfolk, Va., has located in New Orleans.

Dr. F. R. Hill, of Alexandria, La., has joined the Medical Reserve Corps, with rank of First Lieutenant. This appointment is the deserved result of a successful examination in July.

Dr. L. F. Pecot has moved to Franklin, La.

Dr. L. A. Sholars is now located at Lutchet, La.

Dr. James F. Booth has removed from Transylvania, La., to Lake Providence.

Dr. D. D. Swearington from Melrose, N. M., to Clouis.

Dr. R. T. Perkins from New Orleans to Morgan City, La.

Dr. Armand Lafleur from Opelousas to Andrepont, La.

Dr. J. S. Branch from Oakdale to Elizabeth, La.

Dr. E. J. Erwin from Garrett to Hugo, Texas.

Dr. R. C. Elliott is now located in Calle Bolivar 10, Monterey, N. L., Mexico.

DIED.—Dr. E. L. Marechal, founder and editor of the *Mobile Medical and Surgical Journal*, died last month at Mobile, Ala. He was a man of unusual ability and the author of many valuable contributions to medical journals. The Mobile Medical Society, at a special meeting, passed appropriate resolutions on his death.

TULANE NOTES.

THE TULANE MEDICAL (UNDERGRADUATE) DEPARTMENT opens October 1, the Polyclinic on November 1.

AMONG THE ABSENTEES on vacation during the summer were Drs. Matas, Dock, Weis, Hummel, Elliott, Halsey, Chassaignac, Landfried, Duval, Robin, Van Wart, Bel, Oechsner, Hopkins, Smith, and Landry (L. H.).

PROF. IRVING HARDESTY, the newly-elected Professor of Anatomy, has assumed charge of his department at the Richardson Memorial.

RECENT ADDITIONS to the teaching force at Tulane are Dr. J. S. Kleiner, Demonstrator in the Department of Chemistry; Dr. F. B. Gurd, Demonstrator of Pathology; Dr. H. W. Stiles, Assistant Professor of Anatomy.

DR. HENRY BAYON has been appointed Assistant Professor of Anatomy.

THERE IS A VACANCY in the Department of Physiology, occasioned by the resignation of Dr. H. G. F. Spurrell, who has accepted a promotion in an English school.

THE TULANE UNIVERSITY ALUMNI of St. Louis, have arranged for a meeting of all Tulane alumni in that city during the meeting of the Mississippi Valley Medical Association in October, and also during the meeting of the American Medical Association in June next.

A committee composed of resident alumni, Dr. H. J. Scherck, Chairman; Dr. H. McJohnson, Dr. R. C. Atkinson and Dr. R. C. Finley, have arranged to conduct a central registration bureau, where all the alumni can register, giving their home address and their stopping place. A banquet on both occasions will be arranged for and the occasion will be made a most pleasant one for the visiting alumni, renewing old friendships and bringing the ties closer together of the Tulane Alumni.

The committees will be glad to answer all communications addressed to them in regard to hotels, clinics and any other information, by addressing all communications to the chairman. It is intended to make their stay in the city of St. Louis a pleasant one and one long to be remembered.

Publications Received.

WILLIAM WOOD & CO. New York, 1909.

Lectures on Hysteria and Allied Vaso-Motor Conditions, by Thomas Dixon Savill, M. D.

The Malarial Fevers, Hemoglobinuric and the Blood Protozoa of Man, by Charles F. Craig, M. D.

E. B. TREAT & CO. New York, 1909.

Clinical Treatises on the Symptomatology and Diagnosis of Disorders of Respiration and Circulation, by Edmund Von Neusser, M. D. Authorized English Translation, by Andrew MacFarlane, M. D., Part III. *Angina Pectoris*.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition, by H. Strauss, M. D. Part III., *Gout*.

THE YEAR-BOOK PUBLISHERS. Chicago, 1909.

The Practical Medicine Series. Vol. V., *Obstetrics*, by Joseph B. De Lee, A. M., M. D., With the Collaboration of Herbert M. Stowe, M. D.

The Practical Medicine Series. Vol. IV., *Gynecology*. Edited by Emilius C. Dudley, A. M., M. D., and C. Von Bachelie, A. M. M. D.

P. BLAKISTON'S SONS & CO., Philadelphia, 1909.

Children in Health and Disease—A Study of Child Life, by David Forsyth, M. D., D. Sc.

WILLIAM GREEN & SONS. Edinburgh and London, 1909.

A Theory Regarding the Origin of Cancer, by C. E. Green, M. D. Second Edition.

MISCELLANEOUS:

Dietetics. Vol. II, July, 1909. Joseph W. England, Editor. (Smith, Kline & French Co., 1909.)

Second Annual Report, 1907, of the Commissioner of Health of the Commonwealth of Pennsylvania. (Harrisburg Publishing Co., Penn., 1908.)

REPRINTS:

Protest and Prophecy, by C. A. Henry, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR AUGUST, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	8	1	9
Intermittent Fever (Malarial Cachexia)	3	2	5
Smallpox.....			
Measles.....			
Scarlet Fever.....	2	1	3
Whooping Cough.....		1	1
Diphtheria and Croup.....	1		1
Influenza.....			
Cholera Nostras.....			
Pyemia and Septicemia	2	3	5
Tuberculosis.....	40	31	71
Cancer.....	9	8	17
Rheumatism and Gout			
Diabetes	2		2
Alcoholism			
Encephalitis and Meningitis.....	3	1	4
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	12	10	22
Paralysis	4	1	5
Convulsions of Infants	1	3	4
Other Diseases of Infancy	15	8	23
Tetanus.....	2	2	4
Other Nervous Diseases	3		3
Heart Diseases.....	44	19	63
Bronchitis	4	3	7
Pneumonia and Broncho-Pneumonia.....	6	5	11
Other Respiratory Diseases	5	3	8
Ulcer of Stomach.....	2		2
Other Diseases of the Stomach	3	1	4
Diarrhea, Dysentery and Enteritis.....	20	11	31
Hernia, Intestinal Obstruction.....	3	1	4
Cirrhosis of Liver.....	7	1	8
Other Diseases of the Liver	4	2	6
Simple Peritonitis			
Appendicitis.....	2	2	4
Bright's Disease	29	22	51
Other Genito-Urinary Diseases.....	4	4	8
Puerperal Diseases	5	1	6
Senile Debility.....	23	3	26
Suicide	5		5
Injuries.....	29	10	39
All Other Causes.....	31	17	48
TOTAL.....	333	177	510

Still-born Children—White, 21; colored, 25; total, 46.

Population of City (estimated)—White, 265,000; colored, 97,000: total, 362,000.

Death Rate per 1000 per annum for Month—White, 15.08; colored, 21.89; total, 16.91.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.95
Mean temperature 83.00
Total precipitation 8.03 inches.
Prevailing direction of wind, east.

New Orleans Medical and Surgical Journal.

VOL. LXII.

NOVEMBER, 1909.

No. 5

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Ophthalmic Surgery.*

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The press is over fecund. The most industrious and faithful student cannot keep pace with the steady stream of text-books, monographs and journal articles which pour from its steam-driven vitals. We must have resort to compendiums, year-books, and abstracts.

How refreshing now and then to come across something concise, definite, authoritative.

Such a work is Dr. Meller's.

In a small volume, he gives us a terse, clear account of all the operations that time and a great experience in the clinic of his

* Ophthalmic Surgery. A Hand-Book of the Surgical Operations on the Eyeball and Its Appendages as Practiced at the Clinic of Professor Hofrat Fuchs. By Josef Meller, Privatdocent and First Assistant K. K. H., University Eye Clinic, Vienna. The Translation reviewed by Walter L. Pyle, A. M., M. D. Member of the American Ophthalmological Society. Ophthalmologist to Mount Sinai Hospital; Sometime Assistant Surgeon to Wills Eye Hospital, Philadelphia, etc. With 118 original illustrations. Philadelphia. P. Blakiston's Son & Co., 1908. Right of translation reserved.

distinguished master have approved to his surgical intelligence and conscience. Often the reasons for or against a certain procedure, or any operative interference, are forcibly given. By adhering to this plan, profitless accounts of multitudinous methods and their minute modification by this or that imitator are kept refreshingly absent. The highly original illustrations truly illuminate the text and render it entirely comprehensible. It is these agreeable features that have tempted us to expand what was begun as a mere book-notice, into a more lengthy criticism.

The volume opens with a description of excision of the lachrymal sac. This, with its beautiful illustrations, must long remain classical. For the present, the author has made it his own. He has systematized and defined the technique of an operation always difficult to perform deftly, with proper observance of those steps, which alone can preserve it from degenerating into a disorderly struggle to drag the tear-tube from its well-ensconced position. Dr. Meller's text and illustrations are so precise that an operator of limited experience should be able to proceed with but little difficulty. Our own experience with the operation cannot be called great, but we are inclined to believe that the necessity for forcibly probing the nasal duct (p. 12) and its thorough curettage after excision of the sac remains open to question. Dr. Meller does not mention destruction of the canaliculi, so strongly insisted upon by some operators. Perhaps because they have not cut through these little canals, as Dr. Meller directs, but have torn them during blunt dissection, thus leaving a piece of mucous membrane hanging to the fascia (p. 7). By persistent secretion of mucus in the depths of the closed wound, this would be sure to cause trouble. These questions should be certainly decided by the further experience of observant operators. So, too, the advisability of simultaneous removal of the lachrymal gland. It is evident that Dr. Meller's experience does not lead him to consider removal of the palpebral portion of the gland advisable as a routine practice, and here our experience, such as it is, is in accord. Indeed, his observation (p. 24) that after extirpation of the lachrymal gland an obstinate, long-lasting catarrh of the conjunctiva, associated with thick mucoid discharge, is occasionally to be seen, seems a warning against this.* Furthermore, the case

*But Fuchs, 3d Eng. Ed., 1908, says (p. 609): Hence I am accustomed to perform extirpation of the inferior lachrymal gland right after an extirpation of the lachrymal sac. [In the opinion of many, including the translator, this is not often necessary, simple extirpation of the sac not being followed by troublesome epiphora.—D.]

cited, in which, after removal of the palpebral portion, "weeping persisted to such a degree that it became necessary to remove the orbital lachrymal gland itself," should render us cautious in assuring those upon whom extirpation of the sac is to be, or has been, done, that the trifling operation of excision of the palpebral portion will prove all-sufficient should epiphora continue. An unfortunate misprint on page 3 of this chapter slightly mars the clearness of the description. The sentence: "The further from the external canthus the incision is made, the more difficult becomes the dissection," should evidently read "the further from the internal canthus," etc.

The second chapter begins on page 15, with an account of the method employed for producing local anæsthesia for the operation of extirpation. That local anæsthesia is adequate and satisfactory except in the case of children, and that it is productive of no bad effects, we quite agree. We think, however, that the solution suggested by our chief of clinic, Dr. E. A. Robin, composed of 10 mm. of 4 per cent. cocaine solution, 10 mm. of 1 to 1,000 adrenalin and 20 mm. of normal salt solution, is more definite; the amount of cocaine contained, 2-5 grains, is well within the limit of safety, in most cases can be repeated if necessary during the operation, and its bulk being productive of anæsthesia by infiltration is an entire advantage. The amount of the adrenalin solution is just about enough to counteract the bad systemic effect of the cocaine and greatly to enhance its local vaso-constrictor and anæsthetic properties. We have used it in our clinic since 1905* for all cases in which simple instillation of cocaine solution is insufficient. We shall have occasion to recur to its employment again and again during the course of this paper.

Lachrymal probing (p. 24). In our clinic the passage of lachrymal probes as a means of treatment is less and less resorted to; every day we grow more and more inclined to substitute for a painful, tedious and unsatisfactory treatment a definite and efficient operation.

We fully agree with Dr. Meller that unless these cases are seen early, "if the walls of the sac are markedly thickened, if the sac is already dilated or perforated after acute inflammation,"—in a

* Preliminary Note on Enucleation of the Eyeball Under Local Anæsthesia. By H. Dickson Bruns, M. D., and Ernest A. Robin, M. D. Trans. of Amer. Ophth. Soc., Vol. XI, part 1, 1906.

word, if we are face to face with a chronic blenorhoea—"conservative treatment is out of the question."

So, too, we believe a serious stricture of the nasal duct to be a hopeless condition. Here, as elsewhere, dilatation may give temporary relief, but the sound once used, must in time be again resorted to, as the cicatricial tissue again contracts. Considering its routine use in ill-observed cases, those due to misplacements of the lids, to inflammations of the sac from ascending rhinitis, to obstructions of the canaliculi and nasal end of the duct, to reflex causes, etc., etc., and the damage inflicted by partially trained hands, it is not improbable that the invention of Bowman, for all its usefulness, has been productive of more harm than good. A great number—we are not prepared to say all—of the recent cases can be cured by attention to the nose and throat, to the rectification of misplacements of the lids, obstructions of the puncta or canaliculi and the observation of other, for the most part minute, etiological factors. These aside, another group will be relieved by frequent gentle expression and cleansing, immediately followed by astringing with cocaine and adrenalin solutions and the alternate use at short intervals (an hour) of the 10 per cent. solution of argyrol and the one fifth per cent. solution of alum. In practice the latter will be found to make a thin penetrating solution, which will worm its way in and prove effective before any of the other astringents will act. As soon as the argyrol is blown out on the handkerchief the danger is over, and the cure may be completed by the use of weak silver nitrate solutions (1-5 to 1-10 per cent.). In another group still, mere instillations will be found ineffective. After cleansing and the instillation of cocaine and adrenalin, we must resort to the use of the lachrymal syringe, with the patient's head in the proper dependent position. After many trials, which should be continued over a week at least, the fluid will begin to trickle through the nose. Normal salt solutions followed by weak silver (1-5 per cent.), will prove the most effective; for, as Dr. Meller says, the blenorhoea itself is treated with a 1-4 per cent. silver solution in preference to all other agents. If, after patient trial, nothing can be syringed through the duct, we must perforce resort to the probe. Even now the correct passage of B. No. 4, by dislodging a mucus clot in the duct or revealing a membranous occlusion* of the nasal end, may still redeem the case. We say

* Both have occurred in the writer's experience.

redeem, because the tear drainage mechanism is so delicate that, once serious interference by the repeated passage of probes is begun, the apparatus and its function are spoiled. When probes must be passed, however, we can by no means agree with Dr. Meller that they had best be passed through the dilated canaliculus, and that "the canaliculus should be slit only if through eversion of the inferior lachrymal punctum the course of the tears has been diverted" (p. 26). We have not found that the probe can be handled and directed with the delicacy so imperatively necessary if dragged upon by the lower lid, as it must be if passed through the dilated canaliculus. Fuchs says (2d English Ed., p. 610), that in probing through the dilated canaliculus there is risk of lacerating the mucous membrane and thereby causing subsequent stricture, and that he uses the method for purposes of diagnosis only, and then with the smallest of sounds.

We thoroughly agree that the canaliculus should never be slit from the punctum into the sac itself. It has too often been our experience that when the canaliculus had been so extensively slit it was very difficult to find the point of entrance into the sac; "the aperture after the slitting contracting secondarily through the formation of delicate scar tissue around it" (p. 26). This is avoided when the canaliculus is slit for one or two-thirds of its length only. Again, if the canaliculus is slit throughout its extent, syringing is made difficult; this is a misfortune, as syringing often plays an important part in treatment and in the observation of increasing, diminishing or continued patulousness of the apparatus. On the contrary, partial slitting renders syringing through a conical nozzle easy. Dr. Meller's description of the method of slitting is perfect, and the advice to hold the edge of the knife directed towards the eyeball is properly emphasized. This causes the edges of the slit to lie close to the eyeball, the position most conducive to good drainage.

It is surprising that Dr. Meller mentions the preliminary injection of a 3 per cent. solution of cocaine only as an aid to exploration of the lachrymal canal. The additional use of adrenalin produces a much greater degree of patulousness. In cases of lachrymation with retention of secretion in the sacs of new-born children (p. 29), it has long been our practice to advise against the passage of probes and to counsel gentle expression and the in-

stillation of a mild detergent and astringent many times a day. For this we know of nothing better than the solution known in our clinic as "B & C."*; constantly used in mild inflammatory conditions and for cleansing diseased eyes and those recently operated upon. It is mildly alkaline, grateful, refreshing, cleanses well, and, being perfectly harmless, may be entrusted to any patient. We have never had reason to regret this policy of masterly inactivity in these cases of dacryo-cystitis neonatorum, or failed to see them recover† as the child grew older and the parts attained their proper development. It has been sustaining, therefore, to read recently these words of Dr. J. C. Kipp, of Newark, N. J. (Trans. of the Sect. on Ophth., A. M. A., 1908, p. 406): "I wrote on this subject twenty-nine years ago. * * * In all cases treated within the last ten years, I have used simply cleansing and pressure, and have not had to use a probe in any case. The cases that come with abscess of the lachrymal sac are those that have been probed by other oculists."

Having gone into the indications and counter indications for probing, Dr. Meller might well have preached what he doubtless practices, that the treatment of no case of lachrymal obstruction, not due to evident misplacement or occlusion of the puncta, should be begun before the nose has been examined by a competent rhinologist. This is our routine, for it is too well known that the majority of these cases have their starting-point in the nose, either through extension or by obstruction of the nasal end of the duct by swelling of the mucous membrane, by scabs, by polypi, etc.‡

Trichiasis (p. 32), Ectropion (p. 42), Entropion (p. 58). For these chapters again we have nothing but praise.

Our practice in these operations is limited. New Orleans is one of the fortunate regions inimical to trachoma. The cases we see are almost entirely confined to foreigners (chiefly Sicilians), and to transients seeking our mild winter climate. As our institution restricts its indoor patients to the smallest possible number, we see but few of these hospital tramps. Such experience as we have

* Sod. biborat. Ac. borac., aa. Gr. x. Aq. Camph.. ʒi, Aquae (Alcohol 2%) ad. ʒi.

† Unless they be due to congenital occlusion of the puncta (by epithelium), which sometimes occurs, and may be readily seen through a lens.

‡ In one of our cases the diagnostic probe passed freely to the nasal outlet. Here it was stopped by a complete closure of the opening through agglutination of the mucous membrane, as could be seen through the nasal speculum. The obstructing membrane was slit, kept open by the passage of probes for a short time, and a cure resulted.

had, however, convinces us that "scalping," resection of the layer containing the lash-roots (p. 38), should not be dismissed with a word. In many of the cases which come our way, one or more operations upon the lids have been performed, elsewhere, with but partial success; not enough lid tissue remains to permit of another attempt, and "scalping" often gives inexpressible relief to an otherwise intolerable condition (rubbing of lashes on the cornea). If the inturned lashes are few, their destruction by electrolysis is certainly the best means of relief. Gaillard's suture (p. 58), with a single thread and needle, instead of the double-needled U-shaped suture, is often perfectly effective in spastic entropion, and it is simpler and less painful. In carrying the needle down under the skin it is our custom to graze the lower edge of the orbit, and thus give to the resulting subcutaneous scar an anchorage to a fixed point.

In the spastic entropion produced under the bandage (*e. g.*, after cataract extraction), we usually find collodion, applied layer upon layer, at and below the fold of the lower lid, acts better than plaster; it holds its position better and causes less discomfort. Finally, the combined Kuhnt and Szymanowski operation for ectropion and Fuchs' tarsorrhaphy, described in these chapters, seem superior to any others designed for the same purpose, and we cannot but repeat that the illustrations excel in beauty and clearness.*

Ptosis (p. 71).

Of the chapter on ptosis we cannot speak in such praise. Only two operations are described, Hess' and Everbusch's; Panas' and Pagenstecher's are mentioned. Panas, as is well known, connected the frontalis with the lid by means of a finger taken from its skin. Pagenstecher's operation is an inferior Hess. Hess connects the lid to the frontalis by buried sutures; Everbusch's operation consists of a resection and shortening of the levator palpebræ. It should be the operation of choice in the rare cases of recent traumatic ptosis. In paralytic cases it must act merely by shortening the tarso-orbital fascia and connecting the lid with the frontalis. Indeed, until recently, all the operations† proposed for the relief of ptosis followed this idea. But "uncovering of

* We have already found that in this operation we must not take away so much tissue as to stretch the lid too tightly and obliterate the papilla of the punctum, or we cause epiphora.

† Except von Grafe's excision of a lanceolate bit of skin from the lid, useful in the slightest cases only.

the pupil is then only to be effected by the same hyper-elevation of the brow by action of the occipito-frontalis that has already disfigured the patient. It is but an awkward substitution of the action of one muscle for another.”* Dr. Meller justly dismisses the operation of Panas; the main objection urged being against its uncosmetic nature. The truth is that in comparison with recent better methods of connecting the lid to the frontalis, it has no standing. The transplantation of an epithelial covered flap beneath another portion of skin is an unsurgical procedure. It must be granted, however, that its extreme simplicity is an advantage; and one can well imagine that in our country, with its great, sparsely inhabited regions, it might be happily employed by a surgeon of but little experience in operating upon lids and few instruments suited to such work, to relieve some sufferer too poor to seek aid at a distance, and yet demanding the use of at least one eye for the earning of his daily bread. Probably through some unfortunate prejudice, Dr. Meller devotes but four lines to the operation of Motais. The objections urged are particularly unhappy, and indicate but little experience with an operation, which, in such skillful hands should have given brilliant results. The operation does *not* consist in “suturing of the superior rectus to the upper margin of the tarsus,” a method which would produce but little elevation of the lid. As described by Motais himself, it is performed by isolating a tongue (or slip) composed of the middle third of the superior rectus tendon; fastening most securely to its tip the middle of a double needled suture; dissecting between the skin and the tarsus down to the lid edge, and carrying, by means of the needles and thread, the slip from the tendon into this dissected area between the skin and tarsus and then by passing the needles a short distance apart through the skin, as near as possible to the lid margin, and tying the ends of the suture over a bead or small pad, fastening the tendon slip in this position at the centre of the lid edge. We have never seen the operation “interfering with the function of this muscle” in the slightest degree, nor has any operator who has had experience with the operation properly performed, so far as we are aware. That “a permanent diplopia may follow its

*See “Ptosis and the Operation of Motais,” by the writer, in the *NEW ORLEANS MEDICAL AND SURGICAL JOURNAL*, Vol. 57, 1905; also “Motais’ Operation,” *The Old Dominion Journal of Medicine and Surgery*, June, 1909.

performance," should in no case prove true. Diplopia could follow its performance in but two instances:

(1) If one or both eyes were affected, all the other extrinsic muscles save the levator being normal, and the Motais operation having been done upon one or both eyes, the two superior recti were left in a condition of unequal tension or balance. This is the contingency which, we suppose Dr. Meller contemplates. As a matter of fact, however, it does not often occur. We have done the operation in our clinic eleven times, and in only one instance, a case in which both eyes were operated upon, was diplopia produced. That, through the instinct for binocular single vision, the muscles would soon adjust themselves to their altered conditions and the diplopia would disappear, is what we should expect; for, by reason of the grafting of its middle portion into the lid, the superior rectus is neither really advanced nor set back. Should the diplopia persist, however, it would be inexcusable to-day, when the technique of advancement of the straight muscles is so perfected, to permit it to remain *permanent*.

(2) In case paralysis of other extrinsic muscles of the eyeball complicate the ptosis. Here, if one eye were so affected, we should not operate at all; if both were involved we should relieve the ptosis on one side only; for to do otherwise would be to permit the diplopia due to the paralysis to afflict our patient and render his last state worse than his first. This warning, which was long ago given by Noyes (Text Book, 1890, p. 264), Dr. Meller has forgotten to utter. These objections being weightless, the operation of Motais seems to us greatly preferable to any hitherto proposed. Certainly the substitution of a muscle so closely allied as the rectus superior seems more physiological than the use of the occipito-frontalis. The use of the latter muscle forces a grimace and never procures a thorough or natural looking elevation of the lid. After a well-performed "Motais" there is absolutely no disfigurement, and it soon becomes difficult to distinguish the eye operated upon from its fellow.*

In all operations in which the frontalis is the substitute, increased elevation of the lid as the eyes are directed upward cannot be obtained, and unless the head is bent backwards the pupil is rolled up under the lid. On the contrary, it is the crowning

* See the photograph of Case No. 4; Ptosis and the Operation of Motais, *loc cit.*

merit of Motais' operation that the further up the eyeball is rolled by the rectus, superior the greater is the elevation of the lid. This alone seems to us to pronounce its superiority. Indeed, we were so taken up with this merit of Motais' operation that we said in our first paper (Ptosis and the Operation of Motais): "A complicating paralysis of the superior rectus is the only contra-indication." Dr. Shoemaker* having dissented, on the ground that the elastic tension of the muscle, even though it were paralyzed, would suffice to hold up the lid, we are on reflection inclined to agree with him, but so far as we know actual experience of this fact is lacking.†

The Eye Muscles (p. 84).

In the excellent description of tenotomy of the straight muscles, we are at a loss to understand why Dr. Meller recommends picking up the tendon with the forceps instead of with the strabismus hook, an instrument to which he resorts a moment later for the discovery of unsevered fibres. Though we have no experience with the method, it seems that fibres would be much more likely to escape the grasp of the forceps than the sweep of the hook.

We cannot agree that even the most skillful operator should do tenotomy under no more profound anæsthesia than can be had by the mere instillation of cocaine solution. The conjunctiva having been so anæsthetised, the solution should always be injected along the course of the muscle to be operated upon. Here, again, the cocaine-adrenalin-normal saline solution will produce more profound and lasting anæsthesia than cocaine alone; and will diminish the bleeding, which often obscures the field of operation, alarms the patient and parents and produces an ugly hæmatoma. It is not our habit to close the wound with sutures or to bandage the eye after tenotomy, unless we fear, in certain unmanageable cases, infection from the fingers. The unbandaged eye can be kept cleaner by frequent instillations of borax or argyrol solution, and, what is of greater importance, the permanent result is favorably influenced by having the eye operated upon take up at once the correlated movements with its fellow necessary to the greatly-to-be-desired binocular single vision. This it cannot do if bandaged.

* *Annals of Ophth.*, October, 1907.

† The imperfect diagrams of Haab, reproduced in this country in the text-book of Dr. De Schweinitz, have done much to keep up incorrect ideas of the operation.

Advancement (p. 86).

Driven by dissatisfaction with many features of the methods in vogue, we have succeeded in devising a method of advancement of the recti by combining the advantages of the others, eliminating their faults and disposing of the tuck and closing the wound in an original way.* We are, naturally, prejudiced in favor of this method; but attempting for the present to lay aside this prejudice, we shall try to criticise the operation described by Dr. Meller in the light of the experience which led us to devise our own. To begin with, in advancement, even more than in tenotomy, the use of the cocaine-adrenalin-normal salt solution is far better than the injection of cocaine alone. Here it may be emphasized that, to obtain the best result, we must wait at least five minutes after the injection before proceeding to the operation, and experience has taught us that eight minutes is better than five. This is essential. If sensibility should return before the operation is completed, dropping the compound solution upon the field of operation diminishes it and restrains the bleeding.

A single long perpendicular incision through the conjunctiva exposes the field satisfactorily and is afterwards much more quickly and neatly closed than the incisions which form flaps presenting angles; as do the T-shaped one proposed by Dr. Meller, or the L-shaped ones.† Time is saved by the prompt passage beneath the exposed tendon of the single beak of the extended Clark-hook (Dr. C. F. Clark, Columbus, Ohio),‡ and the stripping of the tendon from its bed by a rapid backwards and forwards movement, instead of the use of the scissors, forceps, and two strabismus hooks described by Dr. Meller. The manœuvre with the Clark hook can be performed by the operator alone, while Dr. Meller's plan of stretching the tendon upon the two strabismus hooks requires the services of an assistant, whose hands are sure to be in the way during a series of delicate manipulations in a field already fully occupied by the fingers of the surgeon.

When we come to the passage of the sutures, above all to the cutting away from its insertion and actual resection of a portion of the tendon, we cannot follow Dr. Meller. We regard the cutting

* A Method of Advancing the Tendons of the Recti Muscles, by the writer, *Ophthalmic Record*, June, 1904.

† The Ophthalmic Year-Book. Drs. Geo. E. de Schweinitz and Edward Jackson, 1905.

‡ The Operative Treatment of Squint. By C. F. Clark, M. D., Columbus, Ohio: Reprint from the *Ohio State Medical Journal*, February, 1909.

loose of the tendon as entirely unnecessary, as an exposure of our patient to unwarranted danger, and therefore wholly unjustifiable. The raising of a well-secured tuck in the course of the undivided tendon shortens it as effectively as any resection, any advancement of its insertion. This has been proven by innumerable experiences. Slipping of an eye-muscle tendon is a lamentable accident, only too easy to befall and only too difficult to remedy. When one considers the tenuity of these tendons, their structure of longitudinal fibres held together by interfibrillar connective tissue of extreme delicacy, one perceives how readily they may be frayed or "frazzled" out by the passage of even fine needles and the tension of sutures. One imagines how easily this may happen when the sutures are merely whipped around, 2 mm. from the cut ends of the tendon, in the manner described by Dr. Meller. Such considerations, the practical difficulties arising from these conditions, led us to abandon all advancement operations and to prefer the raising of a tuck in the course of the undivided tendon, as soon as an instrument by which the size and effect of the tuck could be accurately gauged, became known to us. This the Clark hook does to a nicety; and by detaching its handle the effect of the tuck can, if necessary, be measured before any sutures are passed. If secured by a double silk suture passed through the middle of the tendon and tied down above and below, the tuck is never lost; the tendon is split but once by the passage of the needle, and the tying down is the work of seconds only. Dr. Meller's mode of sewing down the tendon seems to us time-consuming and likely to prove either insecure or not devoid of the danger of perforation of the sclera. The danger, against which our author warns us, of producing a corneal ulcer by pressure of the knot in the suture, is entirely absent in the tucking operation which we practice. We have had a hole made in the single beak of our Clark hook; through this hole a long suture is passed before the beak is withdrawn from the tuck after it has been tied off. On withdrawing the beak this thread is, of course, passed into the loop of the tuck. Each end of this suture, on which the tuck rides, is armed with a curved needle; raising the corneal edge of the conjunctival wound, the upper needle is passed under the conjunctiva and episcleral tissues and emerges in the vertical meridian a short distance above the cornea; it is now carried back and passed from without inwards

through the posterior lip of the conjunctival wound; passing a short distance under this portion of the conjunctiva it is passed from within to its outer surface; the other needle is made to pass under the corneal portion of the conjunctiva, to emerge in the vertical meridian a short distance *below* the corneal margin, and the needle is drawn off. When the upper and lower threads are now wrapped together in a surgical sling and slowly tightened, the tuck is drawn forward and fixed permanently in a flattened position upon the sclera, while at the same time the edges of the conjunctival wound are brought together, the suture knot resting upon the folded membrane and not upon the the cornea. If the tuck alone produces the moderate over-correction which is desired, the suture is tied snugly, but not forcibly; but if, as is usually the case, we desire to secure all the effect possible, the suture is tied as tight as may be, when the tuck will be well drawn forward and the eyeball strongly rotated towards the muscle operated upon, and so held until in about a week adhesions fasten all in place; then this "guy suture" will have fallen slack and useless and can be removed by a single snip of the scissors.

We contrast this tucking operation with the advancement of Dr. Meller because we wish to emphasize our conviction that tucking, compared with any other operation in which the tendon is severed and sewed is essentially safer—conserves our patient's interests better; no tearing loose and slipping back of the tendon is possible. Should by any chance the tucking suture give way, as has happened once or twice when we had used cat-gut instead of silk, the patient is no worse off than before. Tucking is certainly simpler, and, other things being equal, should take less time than such an operation as Dr. Meller's. That we can for some months see the lump formed by the tuck, is an advantage, as we have before us certain evidence of the permanence of our work; and if we use the "guy suture" the tuck is laid down and held in place until new-formed connective tissue binds everything firmly in its new position.

Finally, we contend that tucking with the aid of the Clark's hook, especially if we use the "guy suture," which enables us to draw and hold the eye in the desired position, permits us to gauge and control the effect more accurately than an advancement. Thus, we have never been obliged to use the "supporting" and "counter-acting sutures," so fully described by our author.

His comments upon the effects to be had from tenotomies and advancements, and his statement (p. 102) that "in general all strabismus operations have only a cosmetic value; it is only in rare cases that the operation for associated strabismus restores binocular vision," show an uncertainty which we do not share. We do not mean to say that there are not still too many cases in which we cannot predict or promise an infallible result. Unfortunately, our knowledge and technique have not as yet reached so perfect a pitch; but we do believe that in many more than "rare cases" we can, if the patient be not too old or the amblyopia extreme, improve the vision of the squinting eye and achieve restoration of binocular vision. Indeed, under such circumstances we are wont to have a sense of disappointment and failure if binocular fixation is not attained. To accomplish this may require repeated examinations—time and patience. We entirely agree that before even considering operative interference in either phoria or tropia, "an accurate determination of the ocular refraction *under the influence of atropia* is an absolute necessity" (p. 92). Indeed, it is the experience in our clinic that fewer operations are done now than formerly. The people are learning that, if taken early, squint can be corrected by the use of glasses, and they bring their children earlier. When through failure of all other means, we are driven to an operation, the tropometer of Stevens', an instrument not mentioned by Dr. Meller, is the most practical source of reliable indications.

As Dr. Meller says, and as we had occasion to say long ago,* "from a physiological standpoint advancement must be given the preference." Under present conditions the internal recti must be regarded as among the most important muscles of civilized life, and only with reluctance do we make them weaker. In all cases, however, the tropometer rather than the degree of the squint will determine our choice. Muscles which the instrument shows to be overstrong may be safely tenotomized, and those overweak be advanced (tucked). We cannot at all assent that "the same degree of strabismus may in one case call for a tenotomy and in another for an advancement;" unless we mean that it may in one case depend upon an overstrong muscle and in the other upon a decided weakness of the antagonist as shown by the tropometer. Change the dictum to: The same degree of strabismus may in the one

* Review of Hansell & Reber's *Muscular Anomalies*. NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, November, 1899.

case call for a simple tenotomy or a tucking and in another for a combination of both, it will be truer. In brief, in most phorias and slight tropias advancement of one or of both the inefficient muscles will remedy the condition; but in rare cases of very high esophoria we have been obliged to divide the internal recti. All now agree that simple tenotomy of the external recti is valueless. In tropias of the higher degrees, we usually combine tenotomy with tucking on one eye; this steers us clear of an exaggerated effect on a single muscle and avoids the production of proptosis. If we doubt, we tuck first and tenotomize afterwards, or vice versa, at the same sitting. In suitable cases we do not hesitate to perform simultaneous tenotomy of the internal rectus with tucking of the externus, without fear of the "incalculable results" dreaded by Dr. Meller. We entirely agree, however with his cautious attitude toward the avoidance of over-correction, and for like reasons in almost all cases we prefer that the patient should "go about wearing fully correcting lenses for several weeks" before the second eye is attacked. Even where there is no ametropia we prefer this interval between operations on the two eyes. The warning of Dr. Savage (of Nashville) that all cases of alternating squint with normal, or better, vision in each eye and in which the defect has been observed from the earliest years should be approached with the greatest reticence and caution, must be ever kept in mind.

So much, we believe, should now be accepted as general rules to be observed in the operative treatment of muscular imbalances; but in the present state of our knowledge the experienced operator, like the skilled whist player, will know when to break the rule; his ground having been painstakingly looked over and the correctness of his judgment most carefully weighed.

After tucking, as after tenotomy, we apply no dressing or bandage. Here, too, the eyes should be tempted at the earliest moment to the co-ordinations necessary to binocular fixation. The conjunctiva is much more extensively wounded and its reaction more severe than after tenotomy, and the eye can be much better treated by frequent instillations of mild detergents and astringents (argyrol 10%, "B. & C.") if it remain unbandaged. We may be pardoned for saying that the bandaging for three whole days of both eyes of an unfortunate child upon whom advancement has been done seems to us foreign indeed. Possibly it may be prudent after an advance-

ment in which the whole tendon has been cut loose and stitched back to the episclera; the dread of the tendon breaking away from its new attachment must be strong in the mind of an operator, who, when the "sound eye cannot be bandaged," in ambulant cases, finds it "advisable to keep the muscle at rest by introducing a suture through the conjunctiva close to the limbus, and carrying the ends through the canthus to the external skin, where they are tied." (p. 91.) We can confidently assert that no such accident need be feared and no such ancillary operation need be practised after tucking. Nor have we to fear those "unpleasant sequelæ," "widening of the palpebral fissure, protrusion of the eye and retraction of the caruncle" (p. 101) when our result is obtained by moderate tenotomy combined with the requisite amount of tucking. For the correction of a tropia resulting from too free a division of an over-acting tendon, we prefer De Weckers' capsular advancement to any other operation; the result is more certain and it is shorter and easier than a dissection and search for the retracted tendon. Dr. Meller makes no mention of "graduated tenotomy," an operation never done in our clinic. Nor does he speak of operations upon the superior or inferior recti; here tucking is certainly to be preferred to tenotomy, from which we have seen most unhappy effects. In general, we quite agree that the time of life at which the correction of a squint can best be undertaken is when the character and intelligence of the patient is such that he is not too terrified by the mere prospect of an operation or by a small amount of pain, to give to the operator the co-operation that best promotes the attainment of the desired result. Most important is it that the subject shall be sensible enough to play well his part in the tests necessary to the perfect correction of any ametropia and the determination of the kind and degree of muscle imbalance, both before, during and after the operation. All of this will depend more upon the stage of his development than upon the attainment of any arbitrarily fixed age. The earlier such development is reached, the more likely is the operation to improve any existing amblyopia and to restore binocular fixation and stereoscopic vision.

(To be Concluded in the December Number.)

Abdominal Pain.*

By J. T. HALSEY, M. D., New Orleans.

Abdominal pain is a symptom of manifold causation, and of varying significance, sometimes of slight, sometimes of grave import. Anyone with an extensive experience knows well how difficult it may be to correctly interpret it, and how important it always is most carefully and thoroughly to examine any case in which pain in the abdomen is a prominent symptom.

Unless one has given the matter careful consideration and looked closely into the evidence one will be surprised to learn, on so doing, how little positive knowledge we have on this subject. We of course all know that in this, that, or the other condition we have pain, usually of a certain character, and referred as a rule to certain locations. When, however, we stop to ask ourselves, why does a given condition cause pain and why is the pain felt here or there, and when we notice that in some cases of ulcer, for instance, pain is intense and constant, in others slight or absent, we at once realize that, after all, we are distinctly at a loss to give satisfying explanations or answers. It is for this reason that it has seemed that it would be worth while to endeavor to place briefly before you the more important facts and theories bearing on the physiology of Abdominal Pain.

There are three chief views or theories held by different authorities, which are based on the following suppositions:

1st. There are in the abdominal organs and the visceral peritoneum no nerves whose excitation can cause the sensation of pain. Such nerves are, however, present in the parietal peritoneum and its subserous tissues. The various lesions and conditions of the abdominal organs which cause abdominal pain do so by causing an irritation or stimulation of these nerves in the walls of the abdomen. Lennander is the chief exponent of this view.

2nd. The viscera, their peritoneal investments, and the mesenteries all contain true pain nerves, which can be readily excited with resulting pain. This is the view very generally held up to recent times, which has again come into prominence as a result of observations made by Meltzer and others.

3rd. While the abdominal viscera, the mesenteries, and the

* Read before Orleans Parish Medical Society, June 28, 1909.

visceral peritoneum contain no pain nerves, they do contain centripetal nerves. Abnormal conditions in the abdomen excite these nerves, centripetal impulses result and travel up to the cord where by radiation or induction they cause an excitement of sensory centres lying in close relation. The excitement of these centres causes a sensation of pain which is felt in the peripheral distribution of the sensory nerves arising from the centres. Head appears to have been the first to put forward this hypothesis, and he and McKenzie have been its most prominent supporters.

Lennander and many other surgeons base their hypothesis on many observations and experiments made on patients and animals. Working under local anesthesia, L. found that the various abdominal viscera may be handled, squeezed, cut, burned, inflated, stitched, or chemically irritated and the fully conscious patient experience *no disagreeable sensations whatever provided* that during these procedures the *parietal peritoneum* was in no way irritated or manipulated. On the other hand the parietal peritoneum and its subserous tissues were found to be exquisitely sensitive to any mechanical, thermic, electric, or chemic irritation or stimulation, such causing invariably and immediately pain, described by the patient as colic or gripes. Two experiments made by Lennander on a patient from whom it was necessary to remove a considerable portion of gut are especially interesting. Under local anesthesia this loop of intestine was exposed and a short piece distended to complete ischemia and until its rupture was feared. This caused no discomfort. Then a longer segment was distended and as the gut swelled up and straightened on itself, thus putting the mesentery and its parietal attachment on the stretch, the patient complained of a severe "gripe." Lennander considers that this observation (and other similar ones) completely refute the view that colic (Nothnagel and others) is due to irritation by pressure or lack of blood and oxygen, of sensory nerves in the wall of the gut, and he finds here a confirmation of Wilms' view that colic is due to an abnormal peristalsis causing a pull on the parietal peritoneum through the mesentery (or adhesion).

Additional support for Lennander's views is furnished by several anatomical investigators, who found no cerebro-spinal nerve fibres in the various abdominal viscera and their peritoneal investments

and mesenteries, while the parietal peritoneum and especially its subserous layer are richly supplied by these nerves except in one small area near the crura of the diaphragm, which particular area Lennander finds on testing it on patients, to be insensitive in marked contrast to all other portions of the walls of the abdomen.

Lennander concludes as follows:

1st. Pain does not originate in abdominal organs.

2nd. All abdominal pain originates in the abdominal wall, especially in the parietal peritoneum and subserous connective tissue.

3rd. Every stretching of the parietal attachments (mesentery or adhesion) of the abdominal viscera is very painful.

4th. The same for displacement or stretching of the parietal peritoneum and subserous layer in relation to the muscles or aponeuroses of the abdominal wall.

5th. Most lesions causing obstruction are attended at first by violent and irregular peristalsis.

6th. Many chemical substances, i. e. stomach contents, feces, pus, bile, or urine, cause pain if they come in contact with the parietal peritoneum.

7th. All peritoneal inflammation, even that of slight lymphadenitis, or the so-called "peritoneal irritation," increases sensitiveness of the parietal peritoneum and its subserous layer.

8th. The sensitiveness of the parietal peritoneum increases with an inflammation up to a certain degree and then diminishes and may even disappear.

In this general trend these views of Lennander were shared by many, perhaps by the majority of surgeons, and others, especially by those with extensive experience in abdominal operations conducted under local anesthesia. Further the well known observations of the lack of pain in many cases after abdominal injuries (where there was no shock) and such observations as that of a dog eating its own protruding intestine seemed to confirm the view that the abdominal viscera were insensitive.

Recently Meltzer, Kast and Ritter have published certain observations on laparotomized patients and animals which are hard to reconcile with the correctness of Lennander's views. As Meltzer's and Kast's observations are the most numerous and convincing their results will be first given. They find like Lennander

that under cocain anesthesia abdominal viscera and visceral peritoneum are insensitive but that later the parietal peritoneum also loses its sensibility. When under a general anesthetic the abdomen is carefully opened, they find that if the animal be allowed to recover from the anesthetic, cutting, burning, or crushing of the intestine causes unmistakable evidence that such procedures cause pain. They also find that it is possible to produce in the viscera an insensibility to pain by injecting the cocain either in the abdominal wall or in one of the extremities. Further, in some cases, the mere opening wide of the abdomen and in all cases a longer or shorter exposure of a viscus brings about a loss of sensibility in the whole abdomen or in the organ exposed, and in some cases a loss of sensibility of the skin also.

They conclude that the use of cocain in the majority of observations made by Lennander and other surgeons robs their observations of much of their value, that the mere opening of the abdominal cavity, especially if viscera be exposed, often causes the viscera to lose all sensibility, and that abdominal pain can and does originate in the abdominal organs without any direct or indirect irritation of the parietal peritoneum.

Ritter, working chiefly on dogs lightly narcotized by morphin, regularly observed that cutting, suturing, or crushing of abdominal viscera caused pain. He does not consider that this sensibility lies in the visceral peritoneum, for he finds the mesentery insensitive except in the neighborhood of the vessels where the nerves also run. He confirms Meltzer's observations of the power of cocain to cause insensitiveness of the abdominal viscera. In two human patients operated on under local anesthesia he caused severe pain by seizing the intestine with forceps. His observations on dogs led him to conclude that the stomach, the small and large intestine, the spleen, the omentum and the mesenteries are all pain sensitive. Other viscera were not tested. Both Meltzer and Ritter claim that irritation of the viscera, as by drying, increase this sensitiveness.

Opposed to these results of Meltzer, Kast, and Ritter, Muller, working on animals under similar conditions, finds the abdominal viscera insensitive. Mitchel, operating under anesthesia by infiltration with minimal amounts of cocain has in laparotomies on two

human patients found conditions as described by Lennander, he being able to burn, clamp, and crush the appendix in one case and to burn the liver and kidneys with a cautery in another, without the patients' suffering even discomfort. Mitchell also, under salt solution infiltration, in two cases found that pressing, and rubbing of the intestine, omentum and appendix produced no sensation, while traction on the mesentery and pressure on or wounding of the parietal peritoneum was exquisitely painful. Beer examined nine large reducible hernias of long standing, which contained intestinal or omentum, and found that the viscera and the visceral peritoneum were insensitive, while the parietal peritoneum was very sensitive to pain.

In considering these contradictory results, it is important to remember the difficulty in interpreting the sensations of animals, and to bear in mind that the smallest effective cocaine dose mentioned by Meltzer was gr. $\frac{1}{4}$ given to a dog weighing 14 kilo, which would correspond to more than one grain for an adult man, a dose considerably greater than that often given by Lennander and other surgeons to induce local anesthesia in their observations concerning this subject. The author feels that, with the evidence at present available, it is impossible to decide between these opposing views.

The third view, that of Head and his followers, is not necessarily in contradiction to either of those already discussed, but seems to the writer to be a hypothesis which would explain many clinical and physiological facts concerning the localization and character of many pains due to visceral conditions. Head and many others, among whom McKenzie should be especially mentioned, have supported the view that most if not all of the pains experienced in visceral disease are felt, not in the organs themselves, but in the peripheral distribution of their sensory cerebro-spinal nerves, which arise from spinal centres lying in close anatomical relationship to the centres, to which run the centripetal nerves coming from the viscera in question.

Numerous clinical observations confirmed by postmortem and surgical findings have demonstrated that, at any rate in a large number of cases, this contention is, at least in its practical significance, true. The practical importance, to the clinician, of this

explanation of the location of the pain in many cases of visceral disease is hard to overestimate and that there is such a relationship should never be forgotten by us in studying cases of abdominal pain.

Further, an entirely extra abdominal origin of pain felt in the abdomen should not be overlooked. Among the more important of such conditions one may remember diseases of the central nervous system, especially tabes, multiple sclerosis, tumors of the cord, and syringomyelia. Peripheral nervous disease, such as herpes and multiple neuritis and pain chiefly psychic in origin should also be mentioned in this connection.

Among other causes of abdominal pain, which are frequently overlooked, are diseases of the spine, such as Potts' disease, hypertrophic spondylitis, or simple landosio or scoliosis, various intrathoracic diseases, of the lungs, the pleura, or the heart and its membranes or aneurism of the thoracic aorta. Most of the intra abdominal causes of pain will be discovered by the other readers as having surgical significance. For this reason the reader will not attempt to enumerate them but would call attention to the severe cramp-like pains occasionally seen, which appear to be due to the "intermittent claudication" of sclerosed arteries, to abdominal pain as a symptom of chronic metal poisoning, especially to chronic lead poisoning, and finally to the abdominal localization of the pain in some cases of angina.

Abdominal Pain from a Surgical Standpoint.*

By J. A. DANNA, M. D., House Surgeon, Charity Hospital, New Orleans.

The proper interpretation of abdominal pain has been responsible in recent years for a degree of progress in the perfection of abdominal surgery that is second only to that made possible by the introduction of asepsis. This progress has principally been made in the last fifteen years, and to get an idea of what has been done in this direction, a comparison of the statistics of our own Charity Hospital for the year 1892 with those of 1907, will prove somewhat interesting.

* Read before Orleans Parish Medical Society, June 28, 1909.

	—1892—		—1907—	
	Total.	Deaths.	Total.	Deaths.
Laparatomies for wounds of all sorts....	9	6	10	8
“ “ other conditions	5	3	61	20
“ “ Appendectomy*	0	0	122	4
“ “ Gynecological	21	4	268	12
Herniotomies	19	6	110	10
Grand totals.....	54	19	571	54

* Some of these appendectomies done in course of other operations.

Please note that there were in the whole year of 1892 five laparotomies, not gynecological or for gun-shot or stab wound; three of which were gastrotomies, one for intestinal obstruction and one for septic peritonitis. Not a single appendix or gall-bladder operation. In 1907 there were 61 laparotomies of a similar character, besides 122 appendectomies in addition, some of these having been done in conjunction with some of the gynecological operations. A jump of from 54 to something like 571 abdominal operations in fifteen years. This certainly means something. True our aseptic technique has been more nearly perfected and our hospital has grown in size somewhat, but the main reason for the increase is due to our present day ability to interpret the signs and symptoms produced by the various intra-abdominal lesions and determine beforehand what ails our patient.

We have lived to learn that many of these conditions which were known by names that meant the seal of our patient's doom, are operable, removable and curable, and even when we are unable beforehand to determine the exact condition of affairs, we are not afraid to open the abdomen and see. Let us take up first the characteristics of pain as produced by different lesions of different organs without going fully into the differential diagnosis.

The pain of gastric ulcer is acute, sharp, continuous, and comes on immediately after eating. More or less relieved by vomiting. Epigastric tenderness is acute, and more or less continuous.

Of gastric cancer, may be intermittent, sharp like a knife, may be a dull fullness after meals or may be absent entirely.

I have seen very far advanced cancer of stomach and adjoining organs without pain. Have one case now on hand, who has but a short time more to live, who has never had pain.

That of pyloric ulcer is about same as that of gastric ulcer and comes on not less than one hour after meals and is often relieved by the ingestion of fresh food. This is explained by the closure

of pyloric valve till stomach has acted on contents. Pain in duodenal ulcer does not begin till four or five hours after eating and is always relieved by taking fresh food into the stomach.

These pains are all situated in the epigastrium and particularly that due to gastric ulcer may be felt through and through to the back, as they sometimes put it, between the scapulae or in the left sub-scapular region.

Gall-bladder pain varies in character according to the condition present. When due to cholecystitis with inflammatory blocking of the cystic duct, the pain is dull with a very considerable sense of tension, is localized about the region of the gall-bladder, is not so abrupt in onset, and is usually accompanied by a high temperature, ushered in by a chill. Where the obstruction is due to a single stone, large enough to act as a ball valve, the pain is most abrupt in onset and most severe, but usually lasts a very short while and disappears completely, leaving no sign of its presence between attacks.

Where there are many stones, more or less filling the cavity of the gall-bladder, there is always more or less distress in the region of the gall-bladder and the patient is never without some appreciable pain or tenderness. The attacks are not so abrupt in onset and pass off gradually, leaving a degree of tenderness and pain that persists more or less between attacks.

Pain due to stone in the common duct is not so acute as that of gall-bladder or cystic duct stone, is more diffused about the epigastrium and accompanied by signs of intestinal obstruction. In addition to this the jaundice following the pain distinguishes it from gall-bladder pain. Gall-bladder pain generally is felt over the gall-bladder region, extending toward the medial line somewhat, and radiating to the right along the costal arch and upward toward the shoulder.

The pain and other symptoms of acute pancreatitis are similar to those of common duct obstruction but much more severe and accompanied by profound shock.

The pain of kidney stone is intermittent, varying in intensity and duration at different times. Of ureteral stone or stone in the renal pelvis, sudden in onset, very severe, radiating from the lumbar region behind obliquely downward and forward following the line of the ureter and giving pain in the testicle in the male.

The pain of pyelitis and perinephric abscess is more localized in the lumbar region, posteriorly, accompanied by more or less local tenderness and the signs of pus and inflammation. The pain of hydronephrosis from chronic ureteral obstructions is dull and aching and more or less continuous as compared with the sharp pain of stone or acute obstruction, and the throbbing pain and tenderness of an abscess.

The pain of stone in the bladder is increased on moving about and most acute when the bladder is empty, whereas in simple cystitis without stone there is temporary relief from pain immediately after the bladder has been emptied and lasting till more urine has accumulated in the bladder. In stone there is in addition to a sense of weight in the rectum and perineum, pain referred along the urethra and in the gland penis in the male.

Various forms of intestinal obstruction give pain sudden in onset of an intermitent colicky character, recurring every few minutes and later becomes more or less continuous and accompanied by vomiting and distension. The lower the obstruction, the less acute the pain, the greater the distension, the less the vomiting and the greater the intervals of pain and vomiting.

The tenesmus and griping pains of intussusception are characteristic and when accompanied by other signs of obstruction make the diagnosis easy.

A chronic and almost complete obstruction may exist for a long time without any pain, and the patient be finally taken with a sudden severe pain, and all the symptoms of acute obstruction. This is particularly true of obstruction due to inflammatory bands, cancer and enteroliths. I only yesterday removed an enterolith the size of a lemon which had never given any symptoms till it caused symptoms of complete obstruction three days prior to operation and it had nearly ulcerated through at the time of operation. . .

Pain of appendix varies with the character and extent of the lesion. Pain in the region of the appendix without temperature, tenderness or abdominal rigidity, indicates some mechanical obstruction. This may be due to constriction by adhesive bands, to congestion following a large meal, or the presence of a foreign body.

I had a patient two years ago who had the most intense inter-mittent pains in the appendix and came to the hospital begging for operation. On picking up the appendix during operation, it

became erect and moved back and forth as if defying attack. It was large and tense and on removal and incision it was found to contain a large, live round worm. Severe pain with temperature and abdominal tenderness and rigidity which in a few hours become localized in the right iliac region indicate an inflammatory condition of the appendix which may vary from a simple catarrhal inflammation of the mucous lining to gangrene of the entire organ and its mesentery. Gradual subsidence of the pain should occur after the first six hours and in a favorable case properly treated general amelioration of all the symptoms. Continuance or increase in the severity of the symptoms after this time are imperative indications for immediate operation.

Sudden cessation of pain and temporary amelioration of symptoms indicate that a rupture has taken place either of an appendix which was not walled off, or of a walled off abscess into the general cavity.

Perforation of a typhoid ulcer, or gastric or duodenal ulcer is followed by sudden, severe pain in the lower or upper abdomen respectively, symptoms of collapse and general abdominal rigidity and tenderness. Perforation of a distended gall-bladder or an inflamed appendix are characterized by a temporary relief of the pain due to tension and inflammation, followed by the pain, tenderness and rigidity and collapse of the resulting peritonitis. These conditions all call for immediate operation.

Cancer generally is usually accompanied by more or less pain from time to time; but this is not necessarily true, and a cancer which does not cause obstruction of any sort may grow to an enormous size before giving any symptoms locally of any kind. This is particularly true of the sarcomata. I remember seeing a girl of fifteen whose abdomen in the space of one month after some swelling had been noticed, grew to the size of an eight months' pregnancy, who on exploration section was found to have an enormous sarcomatous mass involving the omentum and who never had any pain before the operation.

Enlarged mesenteric glands will sometimes give rise to pain that may be referred to some particular region of the abdomen and lead to an erroneous diagnosis. I have at various times seen them mistaken and mistaken them myself for movable kidney, cancer of the stomach, or of the intestine, appendicitis with adhesions, etc.

The pain of tubercular peritonitis is general with general tenderness, though very seldom severe.

In addition to abdominal lesions producing abdominal pain there are extra abdominal lesions which we must bear in mind in determining the causative factor of the pain.

Pott's disease of the spine and aortic aneurysm eroding the spine will give rise to pain in the distribution of any nerve that may be pressed upon, thus giving pain in some portion of the abdomen.

I have seen the most intense abdominal pain, giving rise to the diagnosis of gall stones or kidney stone that was due to Pott's disease, where it required a careful examination to determine the spinal lesion, and that was relieved by the application of a plaster corset. Thus the spinal lesion need not be very far advanced to give these pains, and in fact abdominal pain may be the first thing complained of. It is an interesting coincidence perhaps, that during the past two years I have sent six different patients home with plaster corsets on who had been sent by various doctors, and some brought to the city by doctors for immediate operation, two being supposed kidney stone case, one appendicitis, one perinephric abscess, and two gallstones.

Another source of abdominal pain is to be found in the thorax. I have repeatedly had patients, mostly children, brought to the hospital for immediate operation for appendicitis or intestinal obstruction, who were really suffering from pneumonia or pleurisy.

Finally, let us remember that the accurate diagnosis of intra-abdominal lesions, while it has reached a high state of perfection, is not always possible even in the most expert hands, and that the ability to make a diagnosis requires the greatest skill, a great amount of practice and experience, patience, persistence and the use of most careful judgment, for the diagnosis usually depends not on the interpretation of any one or a given number of symptoms, but a general summing up of all that can be learned by all the means of observation at hand.

And now that we have considered what abdominal pain may point to, it occurs to me that we might discuss what to do for abdominal pain and the causes producing it.

First of all let me state that it is positively wrong to treat a bellyache, as is many times done, without making some attempt at

determining the cause, and localizing and isolating the trouble. Generally speaking, an obscure abdominal condition with persistent or recurring pain not yielding to ordinary medical means, is an indication for exploratory laparotomy. And as one grows old in experience he learns to make few positive diagnoses before operation and does more exploratory laparotomies.

In a general way I would say that in gallstones and kidney stones, the indication is to relieve pain at once, and this is best done by morphin hypodermically in $\frac{1}{4}$ gr. doses.

A severe pain in the gall-bladder region of sudden onset which is not relieved after a first large dose of morphin or which again increases in intensity after being temporarily relieved by a hypodermic of morphin, is an indication for immediate operation.

I saw a case two years ago with persistent pain which was not relieved by morphin, who refused operation till rupture of the gall-bladder took place and he died of peritonitis in spite of a later operation.

Appendicitis being the most frequent cause of abdominal pain calling for surgical aid, I should like to close by saying a word or two about the medical treatment of this disease in the hands of the general practitioner. The three principal manifestations of the disease are pain, vomiting and constipation. And if we can help nature with her pain, vomiting and constipation, we will have done all that can be required of us in the medical way and to prepare our patient for surgical treatment.

Pain and abdominal rigidity force the patient to go to bed and keep quiet.

Vomiting prevents that patient from retaining any food swallowed that might otherwise be carried down the intestine and cause peristaltic action, and thus prevent, to some extent at least, the formation of peritoneal adhesions which are going to wall off and isolate the appendix from the rest of the cavity and let it slough or rupture if its pleases, without danger to the patient's life.

Constipation is the result of intestinal paresis resulting from the localized peritonitis and is essential to the formation of the adhesions just referred to.

The treatment would, therefore, resolve itself into helping nature, first as regards pain by giving good sized initial dose of

morphin, and applying an ice bag and keeping the patient quiet. Second by aiding nature's attempt to keep the stomach empty by giving nothing by mouth until adhesions have formed or the conditions subsided. Third, by aiding nature's attempt to keep the bowels tied up by refraining from purgation, except in the mild catarrhal cases or those due to mechanical obstruction.

That these rules are not followed I can bear witness, as can any one familiar with the work of a big hospital where cases are brought in with general peritonitis for operation, that did well until the doctor was called in and bent his every effort in getting those bowels to move. There has been a fight between nature and the doctor and the doctor has won and the patient's life lost. This is very strong language, but you will probably bear with me when I state that three out of four such cases that I have seen have been the result of heroic efforts to move the bowels after nature had erected a barrier by the formation of protective adhesions.

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The Hyperacid Stomach.

By SIDNEY K. SIMON, M. D., New Orleans.

A more critical study of the gastric secretions within recent years has brought forth new and important truths and has afforded an altogether clearer insight into the whole complex mechanism of the digestive function. Many of our former conceptions, it would seem, in the light of this newer research, had been founded on obviously incomplete and even in great part erroneous data.

The first real knowledge of the intricate processes of gastric digestion resulted from a series of observations made by Beaumont

upon the open stomach of his famous patient St. Martin and the facts thus recorded, crude as they were, past current for many years as almost the last word on the important subject of food digestion.

Next followed the introduction of the stomach tube by the clinician, Kussmaul, in 1867, and its subsequent employment universally in connection with the various test meals, a method which has proved eminently practical and valuable for routine gastric analyses. This method, in fact, constituted a distinct mile-stone in the progress of clinical medicine but there still remained for the physiologist, unexplained problems of digestion which the stomach tube and its cruder technique could not reveal. In the scientific study of so abstruse a problem in physiology as digestion a radical departure from existing methods became necessary and it is to Parlow and his recent school that we are grossly indebted for so happily meeting this requirement.

Parlow's method, as is well known, consists, in brief, in making an artificial second pouch or cul de sac in the dog's stomach by means of which all the stages and processes of digestion under all manner of varying conditions might be observed at leisure. The knowledge that has been gleaned and since accumulated from these observations has been great, alike to clinician and physiologist.

The test meals along the original lines of Ewald and others, let it be understood, still retain their place as necessary steps in the clinical study of variations of the gastric secretions, but Parlow's results have proven invaluable in their way in adding scientific interpretation to these findings and thus giving them a more definite and precise clinical value.

The value of Parlow's contribution and the necessity of a clearer insight into the physiologic laws of digestion becomes most apparent when we turn to study critically the various types of anomalies of the stomach secretion. I have chosen for discussion to-day in fact a very common form of the abnormal gastric juice, the hyperacid stomach, but shall limit my remarks to that phase of the subject which has to do with a critical explanation of symptoms.

In the light of our newer physiological knowledge, this condition of so-called hyperacidity is capable of a more subtle interpretation as we shall see, than has hitherto obtained.

The actual percentage of hydrochloric acid in the human gastric juice has long been a matter of some dispute. The figures of the

various observers often differ widely. Boas, for example, gives .2% as the normal percentage, Richers .13% and Seilers as high as 44%, all of course based on test breakfast findings.

These varying differences would appear to be of more than passing importance, since if we are to speak of a hyperacidity there should at least be some approximately normal standard as a means of estimating abnormal variations.

The fixing of such a standard, however, is not practical since the acidity of the normal stomach is influenced to great extent by changing conditions such as locality and environment. The figures from German clinics, for example, are undoubtedly higher than those from France and Japan, while here in New Orleans I am convinced that the percentage of acid in the stomach is, on the average relatively low.

The reason for such variations is not altogether clear, but probably has some connection with the habits and diet of a nation or people.

What might be considered a gross hyperacidity in New Orleans then, might not be so judged, let us say, in Germany, that is, if the dictum of the purely laboratory findings be solely considered.

There is, however, still another aspect to this question, which looms up especially large from the standpoint of the clinic.

Are we justified at any time in diagnosing our cases of hyperacidity in the clinic solely from the cold results of a titration of the test breakfast?

There is confusion ahead of him, I believe, who would.

First of all, as we have seen, the test breakfast figures are at the best but relative, varying even with locality and environment. Again, not infrequently in practice instances of high or excessive acidity of the test meal are recorded with none of the clinical evidences of the hyperacid stomach.

These accidental discoveries, if you will, of a highly acid gastric juice without symptoms are by no means to be set aside as mere exceptional instances of no value, but are on the contrary very pertinent to the full understanding of the hyperacid condition.

There is again another side to the clinical picture about which even more might be said. Cases present themselves with all the classical symptoms of an outspoken hyperacidity and when we come to examine the stomach contents, normal or even in many in-

stances subnormal hydrochloric acid percentages are found. I might cite a great many glaring examples of this from my own records. In fact, were we to accept a fixed standard of acidity as an absolute index, there would not be nearly so many cases of hyperacid stomachs in daily practice when, as we know on the contrary these cases form perhaps the bulk of the gastric disturbances.

We cannot therefore escape the deduction which follows from the above that in the evolution of the symptom complex of the hyperacid stomach there are factors at play other than a mere relative increased percentage of hydrochloric acid.

To determine what these factors are, it becomes imperative now to turn to the new physiology of the digestive secretions for enlightenment.

Parlow tells us that the hydrochloric acid as poured out by the peptic glands is of a constant percentage value which means that in each individual, each gland secretes a juice possessing the same degree of acidity, never varying. This invariably holds true, both in the clinically normal or abnormal state, or whether the juice in gross be hyperacid or subacid.

The every day variations in acidity which occur then in the digesting stomach are dependent upon various contingencies:

- I. Upon the quantity of juice secreted.
- II. Upon the physical and psychical stimulus to secretion.
- III. Upon the rapidity with which the food passes out of the stomach.
- IV. Upon the number of acid producing glands involved in the secretion.
- V. Upon the character of the ingested food and its quantity.
- XI. Upon the amount of mucus present in the stomach.

It is this latter element, that is, the amount of mucus in the stomach, that figures most prominently as a cause of the hyperacid symptoms.

As a cause now for a gross increase in acid, there may be undue stimulation to the glands leading to an excessive secretion, such as irritating food or drink; reflexes from other organs, etc.

The food again may contain little hydrochloric acid-containing properties or there may be stagnation of the contents in the stomach (pyloric stenosis, gastropotosis, etc.)

Any of these factors, single or combined, might account for a possible excessive hydrochloric acid reading, but I do not believe they can alone account for the symptomatology of hyperacidity.

For this, I am almost prepared to say, in all cases, we must look for a relative decrease or even absence in part of mucus from the stomach.

Here I believe we are furnished the keynote to the explanation of the apparent discrepancies at times between the chemical findings and the clinical picture of the hyperacid stomach.

That the stomach mucus, in common with a similar function of mucus in all parts of the body, serves a distinct purpose in safeguarding the integrity of the gastric mucosa, has long since been recognized. The stomach, however, it is easy to see, of all the viscera is in especial need of such protection.

What with the highly acid character of its secretion and the thermal and mechanical results of the food, this organ would seem to demand even extra measures for protection.

When now this protection is defective, the result is clear. Aside from the mechanical injuries which may and do occur, the mucosa becomes particularly sensitive to the presence of its own acid and irritant secretion.

The delicate little nerve endings, which normally induce no sensation, now become irritated to the point of positive distress.

In the neurotic individual, this sensitiveness is even more exaggerated.

The patient experiences a sensation of burning in the epigastrium with a gnawing and a sense of emptiness particularly uncomfortable. He feels bloated during the process of digestion and belches frequently, often sour, though, it must be remembered that the sour belching is likewise not always dependent upon actual excessive acidity of the juice. Lastly he often complains of pains, especially of a cramp-like nature, which in many instances are caused by slight fissures or erosions on a pylorus more or less denuded of its mucus.

The symptoms seem to occur particularly at a time when the curve of digestion has reached its height, but in some instances not until the stomach is entirely empty.

The first hydrochloric acid secreted as Parlow has shown us, is

neutralized in great part by the alkaline mucus, normally present on the gastric surface. The proteid element of the food takes up the further supply, but there always occurs a surplus during ordinary digestion accumulating towards the end of the process. This oversupply of acid is what causes trouble for the stomach when there is no longer a free supply of mucus present to neutralize it and prevent irritation of the delicate gastric nerve endings.

To summarize, it is seen therefore, that in a clinical way, hyperacidity is strictly a relative term; that the actual gross percentage of hydrochloric acid in the gastric juice may vary depending on many factors, but that the secretion of each individual acid gland in the stomach remains fixed and constant and never varies as to its percentage of acid; that the acid per se does not cause symptoms, but when these occur, there is a relative and appreciable decrease of the mucous coating to the stomach wall.

The application of these principles to treatment is, I believe, far reaching. Aside from the question of diet, which should be bland, so as not to excite the glands to excessive secretion or irritate the sensitive naked mucosa, comes up the matter of drug therapy.

Already six years ago, Cohnheim recommended olive oil in the treatment of hyperacidity, advancing the idea that the oil would tend to inhibit the excessive hydrochloric acid secretion. This it very probably does, but above and beyond this effect the beneficial action of the oil can be ascribed largely to its physical qualities as a protective agent to the stomach mucous membrane.

It replaces, in fact, in great part the deficient mucus.

The well known action of the insoluble bismuth preparations in diffusing themselves as a mantle over the gastro-intestinal mucosa, will probably explain the extensive and well founded employment of bismuth subnitrate or subcarbonate in hyperacidity.

The drug which has given me the most satisfaction in the treatment of the hyperacid stomach, however, is nitrate of silver. The action of the silver nitrate in this condition is probably two-fold.

Its caustic properties will tend to analgetize the irritable, sensitive stomach surface, while its well-known effect in stimulating mucus secretion would finally remove the missing factor which causes the suffering of the hyperacid patient.

DISCUSSION ON PAPER OF DR. SIMON.

DR. GEORGE DOCK, of New Orleans: I think this is an extremely thoughtful and at the same time practical paper, and I am pretty sure that those of us who have to treat stomach cases will often have reason to think of Dr. Simon in connection with many points that come up.

While I am inclined to agree fully with him about the role of the mucus, at the same time, I do not think we ought to lose sight of the very marked subjective features of hyper-chlorhydria. Most cases have other things, and the way they vary in the reaction to various injuries is a very important point to bear in mind. It is a very curious fact that the hyperchlorhydria is not constant, and yet the patients suffer just as much in the negative phases. In eye-strain, for example, they sometimes have hypochlorhydria, or the acid may be normal, and yet they suffer with their stomachs. I think there are few things in stomach diseases more complicated and more important than this one which Dr. Simon has brought up, and I believe that he has made a distinct advance in the way of looking at it.

DR. J. A. STORCK, of New Orleans: While I think it is true that mucus plays an important role in regulating the acidity of the stomach, it is not probable that the normal mucus exercises much inhibition on the acidity in gastrosuccorhea, where the total acidity ranges between 70 and 100, and the secretion occurs in larger amounts than normal.

The rationale of the use of oil in hyperacid conditions is due to its property of protecting the mucosa.

DR. J. H. LEVIN, of New Orleans: In a good many cases where we have gall stones it is complicated with gastric disturbances, therefore olive oil acts beneficially, and I believe it acts by coating the gastric mucosa rather than any direct effect on the gall stones.

DR. SIMON in closing: Hyperacidity is a vast subject, and I have made no attempt to cover it entirely. I merely wanted to bring out a point I had observed, and that was the importance of the stomach mucus. There are various causes for a gross hyperacidity: indirect reflex irritations to the stomach, such as the existence of gall stones or kidney stones, constipation, anemia or

even hook worm disease, and direct insults to the stomach itself, such as we find in alcoholism or a faulty dietary. I had no chance to mention these predisposing influences to hyperacidity in my paper, which was purely argumentative from the standpoint of the physiology of gastric secretion in general and more particularly the importance of the stomach mucus from a clinical standpoint.

Of course, in the treatment, the first thing is to remove any possible underlying cause, either reflex or direct. I thought I would bring these points out in the discussion, because had I attempted this in the paper it would have taken up too much time.

The Diagnostic Value of Blood Examination.

By C. C. BASS, M. D., New Orleans.

I believe that this subject is of considerable interest because of the increasing demand for clinical diagnostic work; not only on the part of the profession, but on the part of the laity as well. The public now recognize the men who are able to do clinical diagnostic work, and believe they are doing better work. There is, then, a growing demand for clinical laboratory work, and for the men who do such work generally.

I believe that it is very undesirable that anybody, except those burdened with immense practices, should have his work done by anybody else. It is certainly more desirable for a man to do his own clinical work. There are many reasons for doing it. It is generally supposed that it is not practicable, that it is expensive, that it requires the acquirement of a rather extensive technique. For the ordinary examinations of the blood and other things in the laboratory, I assure you that it does not require such elaborate equipment, and it does not require such a great amount of time to acquire the technique, nor to do the work.

Now, when we come to the examination of the blood it may be examined for many things. One of the things for which the blood is and should be examined very frequently, is to determine the presence or absence of anemia, and the degree of anemia present,

both for diagnostic purposes as well as for a clinical check, denoting the progress of the case under treatment. The determination of the amount of anemia present in a given case certainly requires an extremely small amount of technical training to get reasonably accurate results. I refer now to the estimation of hemoglobin. The estimation of hemoglobin, to be absolutely accurate, requires considerable apparatus and accuracy of technic, but for ordinary purposes to estimate the amount of hemoglobin within 5 or 10 per cent. error—which is satisfactory for all ordinary purposes—requires the least equipment and little experience. In order to illustrate, I will show you the simplicity of the estimation of hemoglobin.

Usually in taking the blood one selects the ear or the finger, which is punctured with an ordinary surgical needle or a blood stick, if one possesses such an instrument. Now, squeezing of the tissue before sticking is very essential to prevent pain. After having made the stick, the test now referred to is made simply by comparing some blood on white paper, ordinary blotting paper, with the numbered scale. This subject happens to bleed very well, but the beginner often has great difficulty in getting sufficient blood. The trouble is that he catches too close to the stick. The part should be squeezed far enough away, and then we can get two or three drops if we wish by simply bringing the fingers together. After the blood is obtained upon the blotting paper, it is allowed to dry slightly and then we make our comparison with the scale. —Tallquist's hemoglobin scale.

Now we have determined the amount of hemoglobin in the blood, and have accomplished a great deal. Now, the vast majority of cases of anemia are secondary; that is, something else is behind them—hook worm disease, some acute disease, malaria, or you may already know the cause, but you want to determine the degree of anemia, the progress of your treatment, or the downward course of the case, as the case may be. All this, then is simply done, and, barring the few cases of primary anemia, the few cases of pernicious anemia in which it would require the additional determination of the number of red blood cells, you have been able to clear up the diagnosis.

Another thing that may be easily accomplished, though requiring a microscope, is the examination of smears. For instance, the

question of malaria is up, or the differentiation between a probable malaria on the one hand, or a probable typhoid fever or other infectious disease on the other. One should carry in his pocket a number of slides and a blood stick. He can then take a smear and examine it at will, tomorrow or next week if he chooses. The only trouble that it gives him is that he has to stain it. The staining process is extremely easy. Now, to examine for malaria or to determine the presence of an infectious disease, such, of instance, as an appendiceal abscess, or an abscess anywhere, a pneumonia, or anything of the kind, that is, to determine the presence of a leucocytosis, one can usually determine that without making an absolute leucocyte count. That is a more difficult procedure.

I wish to show you with what ease a slide is taken. One takes a perfectly clean slide and wells up a small amount of blood. Touch it with the center of a clean slide. Place the end of another one in this drop and holding it at an angle to the first one. This is allowed to dry in the air. It may then be carried home and examined at leisure.

DISCUSSION OF PAPER OF DR. BASS.

DR. W. T. PATTON, of New Orleans: I wish to call attention to one point, and that is that the blood changes color in a few minutes when exposed to the air, if the blood is left on the paper for a few minutes very often it becomes considerably darker.

Another point with reference to cleaning the slide. If the slide is not perfectly clean you will have considerable trouble in making the smear smooth. If there is the least bit of grease on the slide the smear will not be regular. I clean these slides with alcohol and wipe off with a dry cloth. You will also have trouble if you touch the ear with the slide in making your smear. Also if you touch the surface of the slide with your finger. I should like to ask how the doctor guards against these troubles.

DR. GEORGE DOCK, of New Orleans; The questions just asked show the importance of paying attention to the small details in this work. I will not answer the questions; I will leave that to Dr. Bass; but I would like to speak of this. We should never handle a slide or a cover glass on the flat. It is a piece of practical work that everybody soon learns. Not only the dirt but the or-

dinary moisture of the finger interferes. So that one gets into the habit of always holding it on the side.

In regard to obtaining the drop on the paper. The drop must not be too large, and it must be examined at a certain stage in the drying, not after it dries, nor while it is too wet. While one can run a certain amount of risk by not paying close attention to details and still get results, the results are very much more accurate if we follow the directions that Talquist pointed out. Incidentally I may say that the Talquist scale is simply an amplification of the old towel test. The latter is still a very useful test if one has had sufficient practice with it and has not a Talquist at hand.

Treatment of Syphilis by Mercurial Inhalations in a Proper Hot Room.

By S. SCHIRO, M. D., New Orleans.

The method of treating syphilis by mercurial inhalations, known also as Campailla's method, consists in mercurial fumigation combined with dyaphoresis in a small heated room, (160-170 degrees F.), properly ventilated and having enough air capacity to allow the patient breathing and inhaling comfortably.

This method is different from the old fumigation or perfume method, described in the books and performed in a fumigation box or in a small tent. The latter was, as Fournier says, prolific in disasters, because mercury was given the patient in exaggerated and indeterminate doses and the treatment was carried in a brutal, asphyxiating manner.

In Campailla's method mercurial vapors are absorbed not only through the skin, but mostly through the respiratory apparatus, while a profuse diaphoresis is taking place.

Thus we could call this method more properly: method by dermo-bronco-pulmonary absorption in dry heat with concomitant diaphoresis.

The original apparatus, which Campailla excogitated for this method, is still in operation and has been successfully operated for the last two centuries in Modica, Sicily, by the city hospital.

The good therapeutic results, constantly obtained by such method, which many times succeeded where others failed, made famous that old institution in that country, and it is strange indeed, that medical literature did not mention it until a few years ago, when some physicians from Palermo, Drs. Melazzo, Fileti and Mannino, after a scientific investigation, adopted the method, modifying in part the original one and using it as a routine practice in the treatment of syphilis. In fact, Dr. Fileti, first assistant of the dermo-syphilopatic clinic of the University of Palermo, in October, 1898, went to Modica with the object of studying *de-visu* the Campailla method and later on in December, 1900, he reported, together with Dr. Melazzo, to the medical society of Palermo all the clinical experiments and observations made on 50 cases, submitted to this treatment in their own hot room. In the same time Dr. Mannino was working on the same line and in two reports to the above medical society he gave the clinical results of 735 patients, treated in his sanatorium during four years and up to April, 1902.

The original Campailla's hot room is built of wood, in the shape of a cistern, thickly plaster-coated outside, with a stone bottom or floor, having a capacity of about 700 liters, about 200 gallons, with a small front door to allow the passage of a man. The heating of this primitive apparatus is obtained by burning charcoal in a suitable brazier, which is withdrawn from the room as soon as 180° F. are reached; the door is kept open a few minutes in order to ventilate the inside air and have the products of combustion expelled.

Then the patient is seated on a chair in the apparatus, a small brazier with well-burning charcoal is placed near him, where he spreads, little by little, the medicated powder, composed of two grams red-sulphide of mercury and one gram incense. The small door is shut and after 15 minutes the patient is taken out, while he is profusely perspiring, and brought to bed to continue the diaphoresis.

Ten or twelve of such inhalations, given generally every other day, represent in Modica a complete treatment. Though the method is carried out with insufficient control and precaution, still no fatalities or serious accidents have been recorded, while numberless are the favorable results obtained even in very obstinate cases of syphilis, rebellious to all other methods in use.

Local physicians say that two to three inhalations are generally

sufficient to see secondary syphilides disappear and five to six for tertiary lesions, that syphilitics who underwent the treatment a great majority escaped tertiary manifestations and women with secondary syphilis in full activity were able to give normal birth to healthy children.

It was then more than just that this method should have attracted the attention to those physicians devoted to daily practice of treating venereal diseases. The results they are having since about ten years in a great number of patients are so satisfactory and encouraging that I was induced to establish a similar institution in this city. This I have done last year in co-operation with Dr. D. Merendino, who was formerly connected with Prof. Manino's sanitarium in Palermo for many years.

The hot room we built and which we called "Mercurial Diaphorium," is all brick-work, with tile floor, 6 ft.-9 in.x5 ft.x3 ft.-8 in. capacity 124 cu. ft., a glass door in front, which opens in a vestibule also provided with a glass door. This is done to see through during the inhalation, when both doors are hermetically closed.

The room is heated by dry heat, pure heated air coming from a heating apparatus in the lower floor. Ventilating apparatus, electric light, electric bell, a thermometer, a comfortable chair are properly placed in the room. It is necessary to use dry heat because it is well known in physiology that a person can resist higher temperature in dry heat than moist heat.

The hot room floor presents a hole, in which can easily be placed through a side opening a small brazier for the burning of the mercurial powder, which is given the patient before entering the room.

Proper dampers are disposed to regulate heating, ventilation and also to insure the hermetical closure of the room. Temperature we use ranges from 130° to 160° F., according to season, weather and individual constitution.

The time required for each sitting is from 10 to 15 minutes, according to each case. In five minutes patient is in a profuse, general perspiration, the skin has the appearance of scarlatina eruption, the pulse becomes stronger and more frequent (10-20 pulsations more than the normal per minute), axillar temperature rises about two degrees F. Heart beats with more intensity and frequency.

Respiration is rather normal, only 2 to 3 respiratory acts more per minute.

Diaphoresis continues for about half an hour longer, while the patient lies in his bed well covered, and then all cardio-vascular phenomena subside gradually until conditions become quite normal and the patient is able to leave the bed and go out.

The treatment is given every other day or twice a week, according to individual conditions and therapeutic indications. During the treatment is recommended the patient to keep his mouth in good hygienical condition in order to prevent stomatitis.

As a rule we give 4 grams of red-sulphide of mercury, except at the first inhalation to a new patient, who is given only 2 grams to test his individual tolerance.

Various organs are carefully examined, especially respiratory, circulatory, apparatus and kidneys, in order to ascertain contra-indication, if any, to this method.

After a vigorous and rapid treatment of ten sittings has been performed a moderate loss of weight, 4 to 8 lbs., is noticed, due to profuse diaphoresis, but after a few days patients gain weight, general condition improves and health is greatly restored.

The immediate effects obtained by this method are far superior to those obtained by any other method, both in rapidity and constancy; in fact, syphilitic lesions show improvement even after the first sitting, secondary symptoms are generally disappearing in two or three inhalations and tertiary manifestations in six or seven of same.

But this does not infer that we can completely cure syphilis in such a short period of time, for anybody knows that syphilis is a chronic disease, which requires analogous chronic treatment even after manifestations are cured by an energetic method. So it is rational that supplementary intermittent treatment should be given, either by ingestion or by inhalation, at proper periods during the time required for a complete treatment.

Clinical experience teaches us that definitive cure in syphilis may be obtained by prolonged mercurial treatment, which in all cases must follow for at least three years, as agreed by the great majority of syphilographers. It is to be hoped that serum diagnosis and other recent knowledge on the spirocheta pallida will enable

us to have a positive test to ascertain definitive extinction of said infection.

One therapeutic point must be well borne in mind and this is of capital importance in the chronic treatment of syphilis, as stated by Fournier: "The manifest advantage of commencing treatment by an energetic first course, even in cases of mild form of syphilis. An energetic mercurial treatment instituted in the first stage of syphilis exerts a particularly powerful modifying action on the future of the disease."

In other words, an energetic treatment, since the beginning, is the best therapeutic help we can give the syphilitics. Mercurial inhalations causing an intense mercurialization in a rapid manner represents a method of preference.

During the year we had under treatment 44 cases of syphilis, which I divide in four groups in regard to their stage or clinical manifestations.

1st.—Secondary recent syphilis, 14 cases.

2nd.—Secondary tardive syphilis, 4 cases.

3rd.—Latent syphilis, 12 cases.

4th.—Tertiary syphilis, 14 cases.

Clinical results have been constantly satisfactory so far and as I intend to gather the distant effects of the method I will make in the future a complete report of all these cases.

The physio-therapeutic action of Campailla's method offers some characteristic points which deserve to be put clearly in evidence.

1st. The quantity of mercury absorbed through inhalation is far greater than that absorbed with any other method. Inhaled-mercurial vapors are directly and rapidly brought in contact with the circulating blood through the pulmonary apparatus. The finding of mercury in the urine, after the first two or three inhalations, is an evident proof of the relative large quantity that is eliminated through the kidneys. With the Ludwig-Furbinger test mercury is found in the urine even after the first inhalation, and Dr. Merendino found it also seven months after the twentieth inhalation in a patient affected by hereditary syphilis, treated exclusively by this method.

2nd. Great tolerance of the organism to the large quantity of mercury thus given. The vapor form of mercury easily absorbed by the respiratory apparatus probably confers such remark-

able tolerance. Hence, we have a maximum of absorption combined with a maximum of tolerance, which may account for the immediate curative effects on the syphilitics.

3rd. The copious, intense diaphoresis which is the peculiarity or specificity of Campailla's method, offers several points to consider.

(a) Modern researches, made by several authors, Brunner, Salter, Queirolo, Spallitta, have thrown much light upon the great salutary influence of perspiration in infectious diseases. Not only toxins but even pathogenic elements (Brunner) are eliminated through the skin with perspiration. It is rational to suppose that the same elimination of toxins may take place in the syphilitic under the action of diaphoresis.

(b) Intense cutaneous perspiration favors also an active elimination of mercury. In fact, we found it in the perspiration gathered from one of our patients. So diaphoresis causes an outward osmotic current, containing mercury, from the whole organism. This large elimination of mercury may also explain the great tolerance to mercury, administered with Campailla's method, in large quantity without harmful effects. And I am led to think by analogy that the same physiologic effect (perspiration) must account for the increased tolerance to mercury when treatment is carried out with sulphur thermal springs, as Fournier, Doyen and others have stated.

(c) Diaphoresis by itself, without mercury, was well demonstrated by the experiments of Drs. Melazzo and Fileti in 1900 to be beneficial to syphilitics. In fact, they treated two patients with multiple tertiary lesions, using only diaphoresis. In both cases they observed remarkable improvement of the lesions. One of these two patients, taken from a hospital, had been refractory to previous mercurial treatment, received for several years. The hypothesis they advance, in interpreting the favorable effects, are worthy of mention.

1st. In recent syphilis, the increased elimination of pathogenic substances. It is to be hoped that recent knowledge and further researches on the spirocheta may demonstrate the value of this hypothesis.

2nd. In tertiary syphilis, the hyperactivity induced in organic metabolism, would cause, on the one hand, a more complete oxidation and combustion of organic products, derived from

alterated biologic chemism of the tissues and thence a rapid renovation or regeneration of such elements, and on the other hand, a rapid elimination of abnormal products. But, leaving hypothesis aside, scientific experiments and clinical facts have clearly demonstrated that diaphoresis is very useful in anti-syphilitic treatment. In my opinion its physio-therapeutic action is similar to that exerted by iodine, but more prompt and less inconvenient.

No wonder then that combining mercurial inhalations with intense diaphoresis we can obtain such splendid results in treating syphilis, far superior in rapidity and constancy to those obtained by other methods in use.

In all the 44 cases, treated up to the present time, we have in fact, met always with favorable therapeutic results and I feel satisfied from my experience and from those of Mannino, etc., whose experience covers a larger field and a longer period of time, to draw the following conclusions:

1st. Mercurial inhalations in dry heat yield more rapid, immediate and constant results in treating syphilis, of any stage, than the other methods in use. Hence its special indication in severe or impending cases of syphilis (brain syphilis, ocular affections, paralysis, etc.

2nd. For the same reason of its intensity Campailla's method confers to the syphilitic for a longer period (several months at the least) an intermission of apparent recovery, which is a favorable condition, especially in pregnant women, who may with much more probability have a normal deliverance, greatly reducing also infant mortality.

3rd. It is preferable for the comfort sake of the patients, for it saves the digestive apparatus and is not so troublesome as the inunctions or other methods.

4th. It is harmless, excepting the cases contra-indicated by disorders in the respiratory, circulatory and renal apparatus or by too old age of the patient.

5th. Does not interfere with the patient's occupation and puts him out of trouble in eluding social or family criticism.

6th. It is the most efficient aid to social prophylaxis, as the syphilitic subjects, under this treatment, quickly become non-contagious, or at least much less dangerous to others.

7th. Compared with the various methods in use, Campailla's

method, as it is practiced to-day in the hot room, answers better to the two most important points in dealing with syphilis.

Efficiency on the disease and comfort to the patient.

DISCUSSION OF PAPER OF DR. SCHIRO.

DR. W. T. RICHARDS, of New Orleans: This paper is of interest to me because I had the pleasure of observing two cases treated by this method that were very refractory and did not respond to any of the other methods, namely, the inunction or the hypodermic methods. In the first case, the initial lesion was on the tonsil, and the mouth and pharynx and even the larynx were covered with mucous patches to such a degree that the man was practically prevented from eating and drinking, and he could hardly breathe. He was getting as much as 5 grains of the biniodide, and would not respond. He was turned over to Dr. Schiro, and in a period of two weeks, five treatments, the patches cleared up absolutely. The result was positively remarkable. Before that the man was losing weight, and could not eat or sleep, necessitating the use of morphin.

The other case was a young man who was suffering from tertiary syphilis. He had been getting six grains of the biniodide, and had been to Hot Springs. Two or three syphilologists had had hold of him, and he would not respond. This method cleared him up very quickly.

I believe this is the solution of the problem of treating syphilis, particularly where we start the treatment early, and also in those cases that suffer from bad stomachs and are unable to take mercury by the mouth.

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DR. HOMER DUPUY and DR. H. D. KING.

MEETING JUNE 28, 1909.

DISCUSSION—SYMPOSIUM ON ABDOMINAL PAIN.

DR. PARHAM: This is a very interesting subject and I think worthy of discussion. The physiology of the subject is extremely interesting, though not clear. I incline towards the theory of Lennander, that the sensation of pain does not reside in the viscera or visceral peritoneum, but rather in the parietal peritoneum or the mesentery. He states that nerves have been traced through the diaphragm to the liver, but not into the capsule of that organ, to the intestines, but not into their peritoneum. Experiments have shown that there is no pain unless there is a pull on the parietal or mesenteric peritoneum. Mitchell's experiments show no pain in viscera and Treves said the symptoms of appendicitis did not appear until the peritoneum of the appendix was reached. Now the significance of all this from a diagnostic point of view is not easily explained, while Lennander's views seem to furnish the clearest explanations, many observations are still confusing and cannot be fully explained by his theories. I would like to call attention to the inaugural symptoms of disease as contrasted with the symptoms as laid down usually in text books, more properly to be called terminal symptoms. Moynihan's address on the subject will well repay careful study. I here refer especially to pain only, the subject under discussion. The anamnesis as given by the patient is very important, as giving his statement of the symptoms, and especially the pain of onset. We have not given the history of onset sufficient consideration. Pain as an inaugural symptom is of very great importance in the diagnosis of abdominal conditions. Moynihan relates an interesting case of a woman who suddenly collapsed. She had fever, but no pain. Appen-

ditis was diagnosticated. She got better, but had another collapse, with severe pain. The abdomen was opened, normal appendix was found, but a ruptured abscess of the fundus uteri was discovered. The pain was caused by the rupture of the abscess into the peritoneal cavity.

DR. CHAVIGNY: I would like to report a case I have recently operated on, which I believe will bring out the points Dr. Halsey has referred to in his paper:

Mrs. H. A., aged 23, white, has been a sufferer with pain in her left side, since puberty, but more so since marriage, which pain would continue during her menstrual period of six days. Last August (1908) her appendix was removed and several gallstones removed. Since the above operation, she has been in indifferent health, suffering with paroxysms of pain in the epigastrium. Patient consulted me in May, 1909, for the fullness and occasional pain in the gallbladder region, but did not return, as I had mentioned the possible necessity of another operation. On June 21, 1909, I received a hurry call to her home. She was suffering intense pain in the epigastrium, which extended in the direction of the right kidney. Examination showed no swelling in epigastric region, no jaundice, temperature $101\frac{1}{2}$ and pulse 120; bowels were constipated. I ordered a grain of calomel and soda every hour until 5 grains were taken, which acted splendidly, relieving the intense suffering, only leaving a soreness. Bowels moved freely after a saline, the following morning. The next morning I found the patient very much jaundiced, with a slight bulging about the gallbladder; temperature 100; pulse 105. The following day the bulging and jaundice had increased; general condition about the same. Advised operation and patient was removed to the Hotel Dieu. On the operating table, the bulging had become so pronounced, that it would not have taken much for the previous incision to have broken through. Opening up the old incision. I found the gallbladder adherent, very red-looking, containing a large quantity of bile, with small particles of white floculæ. I removed the gallbladder, which was adherent to the lower border of the liver. On the second day after operation, she suffered greatly with pain in the epigastrium, which was only relieved after free purgation. I saw her several days ago, about $1\frac{1}{2}$ months after operation. Jaundice had completely disap-

peared, she has no pain, suffers slightly from indigestion and has gained four pounds in weight. The complete relief from pain after evacuation of the bowels, emphasizes the points brought out by Dr. Halsey.

DR. HOWARD D. KING: Frequently one is summoned late at night to see a patient complaining of severe abdominal pain and the causation therefor in many instances is obscure. If the patient is a young man, and unmarried, it would be wise to examine him most thoroughly, as very often the pain might be the referred abdominal pain of a beginning orchitis, in which the sufferer tries to conceal the true nature of the ailment from all except his regular medical adviser. Have had several cases of this kind, always at night, too, and in three instances careful examination revealed the fact that the patient was suffering with gonorrhea in which there was involvement of the epididymis. Another type of abdominal pain is that seen frequently in laborers, or those who do heavy work, such as trucking, lifting, etc. This type of abdominal pain is due to nothing more than testicular engorgement caused by tension on the spermatic vessels at the internal abdominal ring. The only treatment employed in these cases is rest and the use of a suspensory, from which great relief is obtained. Laborers doing heavy work have told me that they do more work and with less fatigue provided they wore a suspensory.

DR. J. B. ELLIOTT, JR.: I remember three cases, all under thirty years of age, complaining of indefinite pains, and I examined them carefully and could elicit no cause. In the last six months they all cleared up under the tapeworm treatment, for they were sufferers from this disease.

DR. LEMANN: I wish to mention two recent cases where extra-abdominal conditions gave rise to abdominal pain. One patient was a boy 15 years old, who had complained for years of abdominal pain, at times paroxysmal in character, at other times constant. He had a scoliosis, with rotation of the spine. Dr. Hatch thought there was no relation between this condition and the pain, but Dr. Van Wart and I, after finding painful points corresponding to the emergence of the anterior branches of the lumbar nerves, were of the opinion that the spinal condition caused the pain by pressure upon the nerves. The patient was relieved by injections

of alcohol. The other patient, a man with a "poker back," had similar abdominal pains, which were relieved by strapping the back.

DR. W. T. PATTON: I have in mind a very unusual case, which may be of interest here. A young man about 16 years of age began suffering with severe abdominal cramps, not localized to any part of the abdomen; no nausea. Came on suddenly and lasted from six to twelve hours. Nothing seemed to relieve, these attacks were at first every four months, then gradually oftener, until they finally came about twice a week. Patient jumped from one doctor to another, over the country. All made different diagnoses—such as appendicitis, gallstones, renal calculi, etc. They all agreed on one thing, however, that an abdominal operation should be performed. Finally, the patient, in disgust, decided to go home to die. Upon his return home in the city, he consulted a young doctor, a friend, who upon examining his mouth found a number of amalgam fillings. On questioning patient, he said that he always had a metallic taste. Closer examination revealed blue line on edge of gums. He was advised to have the amalgam fillings removed. This was done six years ago and patient has never had any attacks since. This condition seems to be very rare, but it was evidently a case of lead poisoning from amalgam fillings. I have found several such cases in the literature.

DR. JOHN F. OECHSNER: Dr. Halsey's paper is a technical one and covers the ground fully well. The condition of intra-abdominal and intra-peritoneal pain must be differentiated. The cases cited by Drs. Butterworth and Danna are those of intra-abdominal and not intra-peritoneal pain. For instance the bladder is an intra-abdominal organ though extraperitoneal. I would like to ask Dr. Halsey a question as to whether the pain of extrauterine pregnancy is due to possible infection or stretching of the peritoneum?

DR. HALSEY (in closing): Owing to the lack of time, many aspects of abdominal pain were not discussed, among the most important of which I would like to mention pain of psychic origin, which is often very severe and always difficult to diagnose with absolute certainty, while it often leads us to make false diagnoses. We must always be on guard against this source of error. The abdominal pain in cases with intestinal parasites has often been

noted as mentioned by Drs. Bass and Elliott. Sometimes it is very severe. As for Dr. Oechsner's questions as to the origin or mechanism of the pain in the cases cited by him, I think it can be brought into harmony with Lennander's views. As for the pain during the passage of an urinary calculus, this would be readily explained by the pulling on the parietal peritoneum. Remembering how the ureter for most of its course lies in close contact with the parietal peritoneum and adopting Lennander's views one sees that a stone in the ureter will necessarily cause pain if it causes a blocking of the ureteral lumen. The violent peristaltic contraction of the ureter working against this obstruction will cause the ureter to stiffen up and squirm and thus cause a pulling on the nerves in the parietal peritoneum. The referred pain to which Dr. Perkins refers is usually easy to understand if we accept Head's views.

As for the gall-bladder disease cured by alkalies, I must express my skepticism. Gall-bladder disease is frequently associated with hyperacidity. Alkalies will relieve this very often and this may explain the cure (?) mentioned, but the gall-bladder condition may well persist and later cause new symptoms.

It is my conviction that when severe abdominal pain is present we should be very sure that we are not dealing with a condition which will be aggravated by purgation, before we give a purge. I dislike to use morphin so long as the diagnosis is in doubt for fear lest its action may mask the appearance of symptoms of grave import.

DR. DANNA (in closing): Dr. Parham's suggestion of allowing the patient to tell his story in his own words is excellent, for we can get anything out of patients if we put leading questions to them. This is particularly true of the cases as cited by Dr. King.

I have gotten in the habit of asking patients suffering from abdominal pain to turn over in bed, with a view of excluding Pott's disease, in which condition the patient is careful to keep his spine perfectly rigid in moving and turning, so that the diagnosis can often be made at a glance.

Appendix pain may be felt in other regions than the right iliac region. I have removed the appendix when it was adherent to

the brim of the pelvis on the left side, and the pain had been all left sided.

I have known gallstone cases that had pain only in the epigastric region. It is also true that stones may be present in the gall-bladder for years without producing pain.

Indigestion is a symptom often accompanying gallstones and often exists for some time before pain manifests itself.

In answer to Dr. Perkins' statement, that every Doctor knows all about the Ochsner treatment and that we should not purge in appendicitis, etc., I wish to say that if this paper just read does no more than impress those present with the fact that the moving of the bowels in inflammatory conditions of the peritoneal cavity, and particularly appendicitis, is not the first and most essential aim in the treatment, I should feel that I have accomplished a great deal.

The story that the surgeon usually hears in consultation in these cases is that the patient gets along very well till the doctor noticed that the bowels had not moved for several days, and he will then go on to tell you how many different things he has done, and what drastic drugs he has used in the attempt to move them. When the surgeon is called in the patient is dying of general peritonitis as a result of the treatment.

I could cite many particular instances, and there are several of us present to-night who probably remember some of them.

Communications.

The XVI International Congress.

By E. M. HUMMEL, M. D., Visiting Neurologist, Charity Hospital, New Orleans, La.

Those of us who enjoyed the rare and kindly hospitality of the Hungarian people during the sessions of the recent International Congress have no hesitancy in admitting that the choice of Budapest as a place of meeting was most happy. Not only were our interest stirred by brilliant essays from many of the greatest minds now coping with the intricate problems of scientific medicine, but we were at the same time spared the impression of finding ourselves strangers in a far away land, and completely charmed, by

the sincere hospitality of the Hungarians, who with uniform accord bid us welcome and left neglected nothing which in the remotest way might conduce to our comfort. The higher officials of the Government and those important in the social life of the capital conspired to render imposing and varied the scientific sessions of the Congress by a number of splendidly planned functions in the nature of receptions, soirees, etc., at the municipal Redoute, and Royal Palace in Budapest; which affairs served to force upon the minds of those of us who live under a government of different usages in this respect the helpfulness of such official recognition towards rendering more substantial in the eyes of the public the labors of a learned profession for the benefit of the race.

On Sunday, August 29, the official sessions were inaugurated at the Redoute, where members of the Congress were graciously welcomed by His Majesty, the Archduke Joseph, and reports were submitted by delegates from the respective governments represented. The address of Professor Landouzy, President of the Faculty of Medicine of Paris, was probably the most notable of these. Professor Bacelli, of Rome, spoke in Latin with such oratorical effect as to hold the attention of all, though he spoke in a tongue few understood. The presence of the military lent a martial air to the occasion, and the intervals were filled with music from the **National Hungarian Choir**.

The more serious work was begun on the following day. The Congress general was divided into 21 sections, as follows: (I) Anatomy and Embryology, (II) Physiology, (III) General and Experimental Pathology, (IV) Microbiology and Pathological Anatomy, (V) Therapeutics, (VI) Internal Medicine, (VII) Surgery, (VIII) Obstetrics and Gynecology, (IX) Ophthalmology, (X) Diseases of Children, (XI) Neuropathology, (XII) Pschiatry, (XIII) Dermatology and Venereal Diseases, (XIV) Diseases of the Urinary Tract, (XV) Rhinology and Laryngology, (XVI) Otology, (XVII) Stomatology, (XVIII) Hygiene and Immunity, (XIX) Medical Jurisprudence, (XX) Military and Naval Sanitation, (XXI) Maritime Medicine and Tropical Diseases. Each of these sections met daily at 9 a. m. and 3 p. m. throughout the week. Present at the sessions of sections, reading papers and participating in the discussions were many of the greater lights of medicine from two hemispheres, some of whom I will mention:

From France—Landouzy, Laveran, Tuffier, Calmette, Doyen, Pozzi, Sicard, Desjerine, Bernheim, Huchard. From Germany—Waldeyer, His, Krause, Aschoff, Muller, Senator, Goldscheider, Wassermann, Hilderbrand, Eulenberg, Higier, Oppenheim, Ehrlich, Friedlander, Ziehen, Gutzmann, Neusser, Ebstein, Brauer, Boas, von Romberg, Strauss, Lenbartz. From Hungary—Lenhossek, Detre, Koranyi, Muller, Jendrasssek. Cajel from Spain Tor-komian from Turkey. From Austria—Frankel, von Noorden, Wertheim, Lorenz, Erdheim, Obersteiner, Frankl-Hochwart, Landsteiner. From America—Murphy, Gerster, Musser, Matas, McMurry, Adolph Meyer, Gorgas, Dock, Hudson-Makewen, Dercum, Sachs, Fordyce, Thayer, Harvey Cushing. From Great Britain and Ireland—Mayo-Robson, Tubby, Bashford, Macowen, Moynihan, Head, Savill. From Russia—Rein, Roth, von Bechterew. From Japan—Kitasato, Hayashi, Saito. Muskens of Holland. Kocher and von Monakow of Switzerland. Verhoogen of Belgium. From Italy—Colombo, Bacelli, Lombroso, Bianchi, Celli. Hensohen of Sweden. Agramonte of Cuba.

The attendance from the various nations was: America 250, Austria 217, Italy 217, Great Britain and Ireland 112, Argentine Republic 37, Belgium 47, Herzogovina 9, Brazil 25, Bulgaria 18, Chili 4, Cuba 6, Denmark 10, Egypt 21, France 281, Germany 288, Greece 19, Japan 48, Mexico 3, Monaco 2, Norway 2, Netherlands 33, Portugal 32, Roumania 10, Russia 228, Servia 7, Spain 67, Sweden 5, Switzerland 29, Turkey 22, Uruguay 3, Hungaria 1,436. Total attendance, 3,488.

Medical schools were represented to the number of 149; medical societies 327. With reference to numerical attendance this Congress far exceeded any of previous date, as at the first Congress in Paris in 1867 the attendance was 922; that of the one at Lisbon 3 years ago, 1762. And not only was the present Congress regarded as highly successful from point of magnitude, but the scientific work was of the highest class, and several entirely original contributions were presented, marking advances in our knowledge of medical science.

Of the more important contributions I will mention the work of Senator (of Berlin) on the present status of our knowledge of Polycythemia; Ebstein (of Gottingen) on Leukemia; Neusser (of Vienna) on Status Lymphaticus; Brauer (of Marburg) on Cardi-

alysis; Cushing (of Baltimore) on Partial Removal of the Hypophysis for the cure of Acromegaly—with photographs of a successful case; Walker (of New York) on Hernia; Bashford (of London) on a statistical Review of the Nature and Cause of Cancer; Doyen (of Paris) on the Cause and Treatment of Cancer; Andrews (of Chicago) in an Address on Surgery; Gluck (of Berlin) showed a subject with permanent inability of the vocal cords for whom he had constructed an artificial larynx which enabled him to speak well, with, however, a phonographic sameness of modulation; Hoffmann (of Königsberg) presented a man with congenital absence of the extremities, for whom he had devised four artificial limbs, with pedal and manual extremities, which enabled the subject to perform all the ordinary activities and to earn his livelihood as a mechanic. These limbs were most ingeniously contrived and elicited the admiration and applause of all witnessing the demonstration; Murphy (of Chicago) spoke on Joint Surgery, and was given an ovation; Gerster (of New York) was made Honorary President of the Surgical Division; and the Americans easily dominated this section of the Congress; Dr. Dock (of New Orleans) presented a paper on the Specific Treatment of Tropical Dysentery, which was well received and, additionally, the Doctor had the distinction of being elected to the Honorary Presidency of the Section on Internal Medicine; His (of Berlin) submitted a masterly contribution on Constitution and Diathesis; and Bacelli (of Rome) occupied an evening with an essay on "Heroic Medication by the Venous Route."

Cancer, Immunity and Appendicitis were the subjects of a number of quasi-public lectures of evenings at the National Museum. His, Laveran, and others were the essayists. These evening lectures and joint sessions of sections proved clever arrangements and constituted one of the happy features of the Congress, as interest was thus provided for the intelligent local public, and for the wives and families in attendance. It might be said that no one in Budapest capable of being interested entirely escaped being entertained.

In the section on Neurology a number of notable papers were read and discussed, to-wit: that of Cushing (of Baltimore) on Hypophyseal Tumors; Oppenheim (of Berlin) on the Diagnosis and Treatment of Tumors Within the Vertebral Canal; Henschen (of Stockholm) on the Organization of the Visual Centers; Der-

cum (of Philadelphia) on the Interpretation of Aphasia; von Monakow (of Zurich) on the Localization Principle in the Aphasia Question; Frankl-Hochwart (of Vienna) on the diagnosis of Hypophyseal Tumors; Head (of London) on Sensuary Impulses in Peripheral Nerves and the Spinal Cord; Sachs (of New York) on the Pathology of Hereditary Diseases; Gutzman (of Berlin, on the Treatment of Aphasia; Sicard (of Paris) on the injection Treatment of Trifacial Neuralgia; Obersteiner (of Vienna) on the Function of Nerve Cells; Madam Dr. Krajewska (of Sarajevo, Turkey) on the Occurrence of Tetany in Osteomalaceous Women.

It is through the kindness of Doctors Matas, Dock and Thayer that I am able to report the more important events in the sections of Medicine, Surgery, and Tropical Medicine, as my attendance was confined for the most part to the section on Neurology.

The Esperanto people were there and held several meetings in Esperanto.

I notice in a recent issue of one of our Journals, an account of some of the features of the Congress which rather tends to disparage the Hungarian people and their institutions. It is easy to guess that this was written by an Austrian as the Hungarians and Austrians are not on the best of terms, though bound together after a manner by governmental ties. The Hungarians insist on retaining their national identity and resent the fancied or real encroachments of Austria, which they style "a fragment of the German Empire," etc. However, the fact remains that a large part of the population is poverty stricken, but this cannot be regarded as the fault of their institutions, as in many other countries in Europe, Austria not excepted, the cramped conditions of life are evident in many ways; and this in turn has its influence on the customs and tastes of the people. For instance, in Budapest horse flesh, being cheaper, is largely consumed by the poorer classes. It is for the most part made into sausages and smoked meats—a half pound of which can be had for 4 fillers ($\frac{1}{4}$ of a cent). The Government has installed a horse abattoir as one of the means of relieving food famines among the poor, and last year about 5,000 retired dray horses suffered martyrdom there.

Many gypsy-like peasants are to be seen about the streets, barefooted and homeless. They are nevertheless a picturesque people, fond of violent colors and dreamy music, content with a crust of

bread; many of them sleep on the ground in the public parks at night. The government is dividing the larger landed estates and supplying the peasantry with small tracts of land on easy terms and resorting to every means toward bettering their condition. Great central nurseries have been established that the farming lands may be supplied with fruit trees, and the public roadways are being planted on either side with trees, the fruit from which pays the expense of maintaining the roads. There is no finer fruit growing country in the world.

The middle classes are well educated, thrifty and economical, and seem to make as much of the conditions under which they live as those of the same social stratum in other parts of Europe. While the same and more can be said of the higher classes.

Moral conditions in the city of Budapest are notably bad, but probably not much worse than in other large cities (Budapest has a population of approximately 1,000,000). I rather think the matter of-fact way in which the government deals with the social evil tends to make things look worse on the surface. Matters pertaining to sexual life are handled without any show of prudery or even the customary reserve. When pupils receive their High School diplomas they are given a number of lectures, by a specially appointed physician, on sexual physiology and hygiene—a unique practice. Rigid attempts are made to regulate the social evil of the city's life, by subjecting female offenders to strict surveillance; while a weaker effort is put forward to suppress it.

There are two medical schools in Hungaria; the Faculties of Medicine of Budapest and Kolozsvár respectively, both of which are affiliated with the Royal Hungarian University—an institution of ancient foundation. The Budapest school is the larger and has 24 chairs. Several of the professors of this school are famed in science: Koranyi, Klug, Leibermann, Jendrassek, Lenhossek, and others. Its buildings and laboratories are equipped in the most approved and extensive manner. The clinical material is drawn largely from St. Stephen's and St. Rokus hospitals, the two main institutions of the kind in the city.

It was a matter of surprise to note the large number of medical periodicals appearing in the country—8 weeklies, 6 biweeklies, 9 monthlies, 1 bimonthly, and 3 appearing irregularly. The National Hungarian Doctor's Union is the National Medical Association, with 3,800 members and 70 component organizations.

As is well known the peculiar composition of the soil in and about the city is the origin of many medicinal springs, of laxative waters especially (Apenta, Hunyadi, Krystally, etc.) Further, there are numerous hot and medicated baths, the water for which issues from the ground at high temperatures. It is a remarkable fact that the purgative waters percolate through only a shallow stratum of soil before issuing from the springs, the earth in these localities being heavily charged with the sulphates of sodium and magnesium—the purgative properties of the waters.

The wines of Hungary are famed as the finest in the whole world. We fancy that those of our Congressists who, during their sojourn, took occasion to sip even lightly of these, found themselves for awhile in a humour to sympathize with Omar when he sang:

Indeed the Idols I have loved so long
Have done my credit in this world much wrong
Have drowned my glory in a shallow cup
And sold my reputation for a song.

To return to the social side of the Congress, probably the most charming personality at the various entertainments was Count Apponyi, Minister of Education, as he was the central figure wherever the exchange of social amenities prevailed. On Monday a large party of Americans, by special appointment on the program, visited the statue of Washington in the City Park. Although, through an oversight, the Count was not specially invited, he was duly present and delivered an address, in perfect English, without which the occasion would not have been complete. He explained that the magnificent monument at the feet of which so many good Americans were then paying homage to a truly great man, the Father of the American Republic, was the gift of grateful Hungarians, who although now happy and contented citizens of this country, wished by this means to prove themselves true to the memories of their native land, and feeling that there was so much in common between the institutions of their native land, and their country by adoption, they were secure in their consistency while thus claiming fealty to both in a manner fitting on either respective hand. Hungarians, he said, were still anxious to cultivate further the friendship of the American people and they eagerly embraced this, a valued opportunity, while so many Americans were at their capital, to lavish every hospitality at their command upon them. This will serve as a specimen of Count Apponyi's cleverness as a speaker. Of magnificent physique, graceful in pos-

ture and carriage, master and fluent speaker of every modern language, an accomplished orator and scholar, he captivated every one with whom he came in contact. A speech of response was delivered by a graduate of Tulane Medical Department, Dr. L. S. McMurtry, of Louisville, Ky. We returned to town feeling proud of our country and grateful toward those who sought this occasion to thus compliment us.

On August 30, a soiree was tendered the Congressists by the city of Budapest at the Redoute. Refreshments were served and we were entertained by the rarest musical talent. Those present made up a thoroughly cosmopolitan throng with a perfect babel of tongues.

As many physicians were accompanied by their wives and families, a special entertainment was given in honor of the latter, at the Royal Hungarian Agricultural Museum. Mme. Arpad Bokay, President of the Ladies Committee, a woman of great talent and beauty, conducted this function, which proved one of the most brilliant of the Congress.

But the chief event of this nature was the reception at the Royal Court by the Archduke Joseph of the Chairmen of Sections and others specially selected, to the number of 1,000. The Archduke was sufficiently interested in the work and personnel of the Congress to patiently, and with apparent pleasure, receive and converse several minutes individually with over 200 men. It was a source of much satisfaction to us to observe such an earnest desire on the part of the highest dignitary of the Government to further the success of the Convention; and we went away feeling that we had the honor of participating in a notable event, the scientific work of which was of the very highest quality, the dignity and importance of which was enhanced in the estimate of the lay world by those in the high places of the Hungarian Government.

The Evolution of a Medical Despotism in the United States With a Few Non-Official Remedies for the Same.*

By C. FRANK LYDSTON, M. D., Professor of the Surgical Diseases of the Genito-Urinary Organs, Medical Department, State University of Illinois, Chicago.

In the minds of the thinking, reasoning, liberty-loving members of the rank and file of the American medical profession despotism

* The substance of an address delivered by invitation at a banquet given in Dr. Lydston's honor by the Medical Research Society of Columbus, Ohio, with about 150 physicians in attendance.

in American medicine has risen from the hazy plane of a theory to a keen appreciation of a condition. It matters not from what angle this condition may be viewed, the impression that something is "rotten in Denmark" is unavoidable, unless one's perceptive faculties are blunted by self-interest, indifference, or that fatuous optimism which invests with rose tints everything requiring serious thought or initiative, and which is so often but an euphemism for intellectual inertia.

To the physician who is endowed with democratic American ideas of politics, the medical situation is alarming, to the individualist who believes in personal liberty it is irritating, while to him who is still imbued with the old-fashioned ideas of ethics and professional *esprit de corps* the shattering of the ideals which our medical forefathers bequeathed to us as a precious heritage is deplorable. To one who was cradled in the ethical principles established by the old American Medical Association, the present idolatry of numerical strength and financial prosperity by the rulers of the Association comes with a sort of a shock. And there are many who do not accept as proof of success the establishment of a large and flourishing publishing business and the gathering into the fold by the organization drag net of anybody and everybody who chances to possess the requisite five dollars. Still less do they believe in the beneficence of political and journalistic monopoly.

Personally I am of the opinion that the arguments thus far advanced in defense of the present official personnel and methods of the A. M. A. are no more cogent than those advanced by the defenders of the Standard Oil Trust. This beneficent invention of selfishness, money hunger, and political prostitution advances arguments in its favor which are similar to those of the present organization of the A. M. A. It has grown wealthy, has stamped out competition, moulded and debauched politics to suit its own selfish interests, persecuted or annihilated all who have stood in its way and developed into an invincible monopoly—in brief, it has been a brilliant "success." Then, too, Rockefeller, to whom the credit of this success is due, is a "great organizer." Therefore let us crown Rockefeller if, indeed, we do not canonize him.

There are those who believe that a clean, self-respecting Association of five thousand members governed by high professional ideals and banded together for fraternal and scientific objects is

to be preferred to an Association of numerical strength ten times as great whose success revolves around a tremendous medical journal monopoly, arbitrary control of all matters professional, a huge income, enormous political prestige and the establishment of a medico-political aristocracy which, since its inception, has made self-perpetuation its principal aim.

The building up of a self-perpetuating medico-political system possibly is a wise and simple solution of all the difficult problems which confront the medical profession of America; it possibly might enable the rank and file to shirk their irksome responsibilities if the offices in the A. M. A. were to become hereditary, a law of medico-political primogeniture being established, but it was not for this that our ancestors threw overboard the tea in Boston harbor. It was not for this that the Declaration of Independence was proclaimed or the Constitution of the United States written. We may imagine the shock to the sensibilities of the shade of Thomas Jefferson were he to read the Constitution and by-laws of the A.M.A. or to attend a meeting either of the House of Delegates or any of the State societies subsidiary to our huge Association. The immortal Jefferson probably could not be placated by the somewhat suggestive, largely explanatory, and by no means apologetic fact that the chief factor in re-organization who now constitutes the political trinity which rules the American(?) Medical Association was himself a Briton born and took the British Medical Association as his cue for re-organization.

Why the profession at large cannot see the dangers of monopoly in medical associations and medical journals is one of the unfathomable mysteries. With a single huge Association and a huge journal—to say nothing of that other monopolistic departure, the Archives of Clinical Medicine—in the hands of the self-chosen few, the rank and file will soon have to dance to almost any tune which the organ of the oligarchy may see fit to play. Evils are bound to arise sooner or later. *History will repeat itself, here as elsewhere.* Ere long the independent journal and the independent medical society will be things of the past. Then there will be no check upon the high handed politics of any little ring of self-seeking politicians who happen to be in power. The rank and file, both within and without the Association, will then have no medium of expression, no avenue for its literary output and no soul which it can call its

own. Possibly it may be comforting to have somebody else think for us and supply us with ready-made thoughts and "canned" science—but methinks 'twill not be happiness to be ruled for all time by a medico-political and journalistic despotism.

To satisfactorily demonstrate that in the long run the A. M. A. and its Journal as at present conducted is or ever will be beneficent it must be shown that monopolies and octopus trusts are of the heavens heavenly.

INCEPTION OF THE PRESENT POLITICAL MACHINE OF THE A. M. A.

Harking back to the policies, ideals, ethics and professional principles of the fathers in regular medicine who founded and carefully nurtured the old Association, the paternity of the new organization reads like a yellow-backed romance. What would those dignified and ethical gentlemen, who so eloquently expounded for us our professional creed, have thought of their medical posterity had they been able to peer into the future? Would our numerical and financial success and growing political prestige and power have glossed over the spectacle of an ex-advertising multiple newspaper "specialist" and homeopath with a dishonestly acquired "regular" degree reorganizing the A. M. A. and writing its Constitution and By-Laws?

The present Constitution and By-Laws of the A. M. A. is a wonderful document, one which, were the rank and file as intelligently familiar with it as they should be, would be a protest against present conditions far more eloquent than the most strenuous opponent of the oligarchy which controls the Association could possibly write. The method of its adoption was worthy of the *coup d'état* by which the last Napoleon and his empire climbed into the saddle and won a place on the page of history devoted to dubious things.

The Constitution and By-Laws was framed by the editor of the Journal—then and ever since a paid employe of the Association—with the assistance of a clever politician, hitherto unknown to fame, who has since become a high salaried employe of the Association. The third member of the Committee on organization was innocuous and merely used for padding. He has never had a share of the plums. The document was written with "an eye to the main chance" and was as clever an imposition on the membership at large as Machiavelli himself could have devised. As an example of

unmitigated effrontery the spectacle of the editor of A. M. A. writing the clause of the By-Laws which provides that *the positions of Editor and Secretary General may be filled by the same individual* is refreshing. As the Editor was and is also Manager of the business end of the Association, the Pooh-Bah of operatic fame does not at this writing seem so much of a burlesque as it did in the palmy days of the Mikado.

Is it to be wondered at that some of the rank and file looked upon reorganization somewhat pessimistically? These "pessimists" did not look upon the present through rose-tinted optic media, nor peer into the future from behind leather goggles. They realized the danger of reorganization becoming a cloak to mask the designs and operations of a cabal of self-seeking politicians.

The all-powerful political Trinity having been created, the rest was easy; it was but a step to By-Laws which should make the Czar of all the Russians blush for his reputation. Take, for example, the section on membership. Section 1, page 8, says:

"A member in good standing in the constituent Association may become a member of the A. M. A. by presenting to the General Secretary satisfactory evidence of the above qualification."

Section 2 says in effect that an official notification of the loss of membership in the constituent body the General Secretary shall drop the delinquent from the roll of membership of the A. M. A.

Section 3 says:

"A physician who has forfeited his membership may be reinstated when satisfactory evidence of qualification has been presented."

The despotism is now firmly established! What is satisfactory evidence? The Editor, Manager-General Secretary will decide this point. To whom shall it be satisfactory? Why, to the General Secretary, of course.

Section 2 is an illustration of Machiavellian intent combined with puerile simplicity and ignorance of the simplest principles of law. Be it noted that this section could be defeated by the veriest tyro in law in any court this side of Central Africa. *Enrollment as a member does not constitute membership. It is merely a record of membership.* A member is no less a member even though his name never appeared on the enrollment list or, having been recorded, has been erased. Section 2 does not provide for the auto-

matic dropping of a physician from membership under any condition whatsoever. But it served, though "not so wide as a barn door nor so deep as a well."

The axe of the despot sought noble prey. March 14, 1904, Dr. Henry Byrd Young, of Burlington, Iowa, was informed by Dr. Bulson, the Secretary of the Ophthalmologic Section, that the Secretary General had written him—Dr. Bulson, "early in the year" to the effect that he Dr. Young, had "opposed reorganization in Iowa," was no longer a member of his State Society and therefore was ineligible to read a paper before his Section. This after Dr. Young had accepted an invitation to read a paper on a special subject on which he was an authority and had prepared the same.

Here was a most beautiful example of A. M. A. machine methods. Note the following, please:

Dr. Young had not opposed re-organization but had opposed the illegal method of its adoption by his State Society and had opposed the Simmons-McCormack plan in favor of the New York plan of re-organization.

The Secretary General, Dr. Simmons, had informed Dr. Bulson of Dr. Young's defection and ineligibility "early in the year 1904." Dr. Bulson notified Dr. Young of the Secretary General's ruling on March 14, 1904. The first meeting of the Iowa State Society under the new plan—or any other plan—after Dr. Young's alleged opposition to re-organization in Iowa occurred May 4, 1904.

How did Dr. Simmons, "early in the year," or Dr. Bulson, on March 14, 1904, know what either Dr. Young's or his State Society's attitude and actions would be on the 4th of May following?

Dr. Young appealed to the Judicial (?) Council which, under the hypnotic spell of "the master's voice," supported the position of Drs. Simmons and Bulson. *Despite this illegal, tyrannous ruling, Dr. Young's money was accepted and a certificate of membership issued for 1905.* Not until March 11, '05, did the Secretary notify Dr. Young, having been officially informed that he was no longer a member of his State Association he had dropped his name from the rolls.

Accompanying this official notification was a check for 85 cents—the pro rata amount of dues for the balance of the then current year.

Why, oh why was there none to rise in his righteous wrath and demonstrate that the By-Laws of no Association can rob a member of his legal rights as a citizen of the commonwealth under the laws of which the Society was incorporated? A certificate of membership paid for in advance was arbitrarily forfeited without any formal process of law whatsoever, under the authority of a By-Law section which would not hold water before any court with intelligence above that of a chimpanzee. But, nevertheless, Dr. Young—for 23 years an honored member of the A. M. A., an Ex-President of the Iowa State Society and an honored member of the medical profession—was the helpless victim of an outrage which, were physicians, men of affairs, would either have been righted, or would have disrupted the Association.

When will doctors understand that simplest of social principles, that a governmental wrong to one is a wrong to all?

As I write I have before me the membership certificates and entire correspondence bearing upon Dr. Young's case, hence I "speak by the card."

The following extract from the report of the Re-organization Committee should add to the merriment of nations, and suggests that, like Pooh-Bah, the "three tailors of Tooley Street," were not much of a burlesque, after all.

"After full consideration of the problem before us, we early reached the conclusion that it would be useless at this late date to suggest the adoption of either half-way or compromise measures, and, therefore we have prepared and now submit a completed revised Constitution and By-Laws, designed to federate all the State organizations into this Association, to foster scientific medicine and to make the medical profession a power in the social and political life of the republic."

(Signed) :

J. N. McCORMACK,
GEO. H. SIMMONS,
P. MAXWELL FOSHAY.

(Italics mine, L.)

Modesty impelled the Committee to write "the medical profession" in lieu of "us." The "fostering of scientific medicine" was probably designed to pave the way to the admission of eclectics, homeopaths, advertising quacks or whoever might possess the five-

dollar membership fee. With the money in sight, the machine could readily reconcile all differences as to what constituted "scientific medicine." Judging by his record, the standard of at least one member of the Committee was broad and catholic enough to embrace every system of medicine in the whole gamut, from homeopathy and newspaper advertising to the "Terchloride of Gold Cure" for the alcohol and opium habits, "Compound Oxygen" and voodoo spells and charms.

Be it noted in passing that the combined salaries of the two gentlemen who wrote the Constitution and By-Laws which provided fat jobs in multiplicity and unlimited power for themselves then, now and forevermore, amount to \$17,310.05.

It will be noted that some literary and philanthropic efforts pay fairly well.

SOME OF THE EVILS ACCRUING FROM REORGANIZATION.

The members of the A. M. A. suffered a great wrong at the inception of re-organization. The old Constitution and By-Laws were cast aside and the new one adopted as arbitrarily as though the will of the machine was the only law worth considering. All legal and parliamentary obstacles were brushed aside as if they had been flies whose buzzing was both unmusical and impotent*. The illegal and unparliamentary example set by the central machine was infectious. Some of the State Societies—notably the Iowa State—threw all legal and parliamentary restrictions to the winds and adopted the parent scheme with a great flourish of trumpets. The Simmons-McCormack plan was crammed down the throats of the membership of the subsidiary organizations, willy nilly. As medical societies from time immemorial had been run by the ambitious few, subsidiary machines were easily organized. *These subsidiary machines are to-day the roots of the political Upas tree which is overshadowing and vitiating the blood of American medicine.* In order to correct evil conditions in the A. M. A. a majority of the State Associations would have to be democratized and their machines broken up. Looks like a hopeless task, doesn't it?

Meanwhile, the component parts of the subsidiary machines follow the fat, sleek, well-paid, powerful bell wethers—and they seem to like the tinkle of the bells, to say nothing of the eagerness with which they drink in the dulcet tones of the master's voice.

* Those who are interested in this phase of the reorganization of the A. M. A. are referred to the masterly articles by Dr. W. H. Sanders, *Medical Record*, June 1, July 19 and July 17, 1905.

With the unlimited power which he conferred upon himself, the Editor-Secretary General-Manager would have been less than human and unworthy of his psychology and professional antecedents had he not taken the fullest advantage of his opportunities. He has "played favorites" in the columns of the *Journal*, and has looked after the interests of the machine cogs, to the exclusion of both the dull gray neuters and the shining lights outside of the official family and its sycophants and satellites. He has consecrated the columns of the *Journal* to the exploitation of the chosen few and has put the lid on the aspirations of many deserving men who were not of his own political household. He has used the columns of the *Journal* to punish those who opposed his policies and to reward for their fealty his personal and political friends. He has editorially assailed the personal and business character of those who have chanced to come under the ban of his machine or himself. He has degraded the *Journal* to money making by publishing offensive advertisements which no newspaper would have dared to accept. He has conducted a system of anti-proprietary lynch law in the belated war on men whose "tainted" money primarily built up the *Journal*—men whom he and the A. M. A. once delighted to honor. In this war he has apparently been indifferent to fairness, to justice and to scientific accuracy and has hazarded the finances of the Association by inviting suits for libel which only ignorance, poverty or cowardice has prevented the victims of his assaults from instituting. He has played fast and loose with our editorial columns in the game of vulgar, everyday politics—as witness the long editorial booming Dr. C. A. L. Reed for United States Senator—an editorial which was paid for with money which should have been devoted to legitimate journalistic work. He has used the advertising columns as a political club, and in a most unfair and partisan manner, to further his personal animosities and patronage and to aid the schemes of the machine. He has so arranged his political fences that he has elected his own employers (sic)—the Trustees. He has arbitrarily expelled "without process or warrant or color of law" at least one worthy member of the Association. He has interfered with the private political affairs of certain medical men and exhibited bulldozing tactics that merited a rebuke which would have been remembered by him to the last day of his performance upon

the medico-political stage, as witness his practically commanding an Ex-President of the Chicago Medical Society to get out of a political society which was opposed to the re-election of Governor Deneen—for whom, by the way, the Treasurer of the A. M. A. was then electioneering and using all the influence of his prominent position in the A. M. A.

He has used his position to secure political appointments for himself and his machine favorites. Let him who doubts this assertion note the recent Chicago appointments of the Secretary General-Editor-Manager and himself to positions in the Medical Reserve Corps of the United States Army. Two of these appointments went to himself and an Associate Editor. A third went to the local Trustee and a fourth to the Treasurer. A fifth went to one of the machine delegates to the A. M. A. for 1909. Not one was allotted to the men who had served in the army!

Note also the efforts of the machine to influence the Governor of Illinois to displace the present Secretary of the State Board of Health and appoint to the position a henchman of the machine from Minnesota. The machine wants everything, be it noted.

The Secretary General-Editor-Manager has aroused the antagonism of the profession of Cook County, Illinois, and made them hostile to the A. M. A. Put the matter to a ballot and a large majority of them would vote to eject him from office and from membership in the local societies—the which I stand ready to prove if challenged, the loser in the argument agreeing to pay the expenses of the canvass.

Lastly, he has a professional record which has made a laughing stock of the A. M. A. and which has made ineffective much of the work we have done in our attacks on quackery and the proprietaries, the latter of which use the “pot and kettle” argument.

In the *Ohio State Journal* (Sunday edition), July 25, 1909, a quack remedy company publishes a letter of inquiry from the *Journal of the A. M. A.* regarding “this particular nostrum,” and reproduces two of our Secretary General-Editor-Manager’s own old-time newspaper ads., pointing index fingers of scorn at the A. M. A. and making comparisons and comments which were neither flattering nor helpful to the Association.

The profession not being all cowards or “subsidized,” there would be no difficulty in getting witnesses to prove what every

doctor in the United States knows and which the majority are ready to admit. As for Cook County, the hotbed of A. M. A. machine politics, recent society elections showed that the profession is so thoroughly aroused that to be nominated for office by the machine now means medico-political death.

Messieurs the Oligarchy—and my friends the deluded Optimists and Sentimentalists—you have demanded an impeachment of the head of the machine that is up-to-date, something not ante-dating the period of his “reform.” I have herein done the best I could to respond, but what’s the use? “The king can do no wrong,” and in the full glare of the limelight of justifiable adverse criticism the cogs and little wheels of the machine will still be found worshipping the stuffed prophet who forms its axis.

And what is there on the credit side of the ledger? The Editor-Secretary-Manager of the A. M. A. *has perfected a tyrannical political machine, built up a large circulation for a Journal monopoly and has made a lot of money in a business in which we are “stockholders” only to the extent of bearing the financial burdens, for we have no “voice.”* Have we not sold our birthright for a mess of cold pottage? And yet, our old ideals perhaps may have been too high. Possibly we were wrong in failing to adapt ourselves earlier to the Standard Oil ideal.

The A. M. A. shows the anomaly of a combination of Trust Monopoly and Trades Unionism. The Secretary General-Editor-Manager in his Trust-organizing operations has an able lieutenant in Dr. McCormack, on the Trades Union side of the scheme. The advice of our “walking delegate” to laymen to refuse employment to all physicians who are not members of the local branch of the A. M. A. is somewhat bold. Messrs. Gompers *et al.* have had considerable trouble with the United States Government through similar tactics. Really, we may soon expect the picket, the boycott and the slugger. Dr. McCormack has many qualities which make him a very useful part of the machine. He is eloquent, persuasive, bland and suave, and can make oratory assume the fair front of argument, and, like a veritable master of linguistic necromancy, transform palpable sophistry into a veri-similitude of logic. If by his eloquence he could but explain away the arrest of himself and his son—the latter being the Editor of the Kentucky State machine organ—for infraction of the sanitary laws of his State

not long since, he would add certain ornamental features to his usefulness as a walking delegate of the A. M. A.* *I am of those who believe that his pardon by Governor Beckham did not erase the blot on the scutcheon of the A. M. A.*

Not the least of the offenses of the machine of the A. M. A. is its attitude toward hostile criticism. The independent journal that dares to criticise the policies and acts of the oligarchy does so at the peril of its very existence. The power of the machine through its *Journal* is supreme. Most of the independent press is in abject and justifiable fear of the Powers That Be. As for the individual who ventures to assail the machine, no vituperation is too severe or falsehood too black to satisfy the Oligarchy in its "come back." Now that the anti-proprietary mania has possession of the A. M. A., any criticism is, of course, charged up to the inspiration of the proprietaries.

In the *California State Journal* for June, 1909, appears an editorial in which the Delegate from Oregon was assailed and ridiculed for daring to exercise his prerogative by opposing the machine on the floor of the House of Delegates. *The writer of the editorial is a Trustee of the A. M. A. and was himself a Delegate!* Think of it, my brethren! And this brings us to a crying evil in the organization of the A. M. A., one which proves the un-Americanism of the Association. The Trustees, Treasurer and other officers are eligible to both the State and National Houses of Delegates. At the last meeting a number of Trustees and the Treasurer were Delegates and therefore "electors"! *What a sublime spectacle were these Trustees voting in the State electoral body which created them Delegates to the A. M. A. and then voting in the electoral body which made them Trustees! And what shall we say of the Treasurer, who voted in the body which elected him a Delegate and again in the body which re-elected him Treasurer?*

If anyone doubts the constitutional validity of the foregoing criticism, let him read the Constitution of the United States and note the prohibition of any person holding an office of trust under the government, serving as Senator or Representative. Let him further note that Senators, Representatives and other holders of offices of trust are prohibited from serving as electors. *Then let him answer as his judgment dictates my charges that the A. M. A. is un-American.*

* *Vide National Druggist*, April, 1909.

To one who fain would have faith in American manhood and independence, who believes in American institutions and for science for science's sake, the spectacle presented by the meeting of the A. M. A. and its subsidiary bodies is not inspiring. A House of Lords composed of a minority of the membership—men of high scientific attainments—isolates itself from the working body, plays politics and runs the organization while the majority, the medical commoners, meet in the sections and do such scientific work as they can. It fills one with pride to feel that within the portals of the House of Delegates the Wise Men of Greece are doing our thinking and running our business for us the whilst we are denied the right of suffrage.

Reverting to the belated war on the proprietaries, it has not been an unmixed good. The machine has forgotten that the proprietary man has certain rights as an American citizen. He should not be treated as a criminal until he has been proven to be one. His business is not illegal *per se* and has the protection of the law until fraud shall have been proven. "*One man's rights cease where another's begin.*"

Let us prosecute the fake proprietaries, but let us not establish lynch law nor confound persecution with prosecution. Be it noted that one firm, the head of which was most malevolently assailed in the *Journal* in matters of a private business and financial nature far removed from his drug interests, is again advertising in the *Journal*. Have the Editor's and Council of Pharmacy's points of view changed or has the prodigal repented and returned to the fold?

Let us have fair play. When we are right in our attacks on drug manufacturers, let us stand by our guns and compound no felonies. When we find that we are in the wrong, let us apologize and make amends, if only as a sop to the Cerberus of membership curiosity. This will need no diagram to make it clear to the Editor of the A. M. A. and his machine.

A curious phase of the politics of the A. M. A. is the servility of some of the machine satellites. A small puddle of hope in the way of prospective college or hospital appointments or assistantships, or an official society appointment, is sufficient to drown otherwise huge murmurs of discontent. "Many are called and few are chosen," but a mere phantasm of promised patronage

binds some men to the machine with hooks of steel. Much of the hysterical loyalty to the machine has been bought, some with offices and some with the Association's money. Editorials are farmed out at great expense which, if written by the Editor, would not buy favor for the machine. Why the Association tolerates the expenditure of our money for editorial work which the Editor is himself paid for doing is a mystery. The fact that the Editor is himself not competent to write editorials merely serves to give point to the criticism.

IGNORING OF THE BUSINESS ASPECT OF MEMBERSHIP RIGHTS.

We now have a "business" of about half a million dollars per annum, the expense account being between \$300,000 and \$400,000 per annum. Simple discretion, to say nothing of an abstract sense of fairness, should impel the machine to render to the members an itemized yearly account of its business. So long as the reports are like that from which the following is an excerpt, interrogation points will continue to loom large on the membership horizon:

Items:

"Salaries	\$38,165.96
Pay roll	85,727.32
Miscellaneous expense	2,097.32
Factory supplies	28,850.02
Commissions	11,537.36"

Dr. X, of Oregon, or Dr. Q, of Honolulu, if you doubt that our bookkeeping is correct, drop into the JOURNAL office some morning, and if you are not mistaken for a peddler and kicked out, we will show you the books and the report of the auditors employed by the local machine. If you are an expert bookkeeper you can take everything in at a glance. The machine will probably welcome investigation; it always does. Note, for example, the fate of the Walker resolution in the House of Delegates at the Detroit meeting several years ago. To quiet the grumblings of inquiry and discontent Dr. Walker proposed that a non-machine committee of investigation be appointed. He was promptly voted down. He should have asked for a machine committee. That might have gone through.

If, good masters of the Oligarchy, what I have thus far said is "malicious" in your eyes, or would seem to have been "inspired

by the proprietaries," do thou make the most of it. This is not an attempt to reform you, but to depict you in no uncertain colors on the mental screens of both your willing and unwilling subjects. Reform the machine? I despair of it, and yet will I submit—

MY CONTENTIONS:

Ist. Nothing short of a new, independent, democratic, truly American medical association will rescue the profession from despotism and monopoly. Even were the politics of the A. M. A. "chaste as ice and pure as snow," I would still make this contention. Monopoly is always evil and despotism always in sight, for "power grows by what it feeds on." No man or group of men is wise, good or strong enough to domineer over the profession of this great country. Reform "from the inside" is a pink-eyed optimist's dream. The things which seem to me necessary to complete a radical reform probably could not be brought about within an ordinary life time. Some of them, however, may come to pass before we of the old guard have all passed on. This faint ray of hope is all that encourages me to present my other contentions.

2nd. The Constitution and By-Laws should be amended so that the reins of power would be taken from the hands of the Secretary General, never again to be placed in the hands of a single individual.

3rd. The offices of Manager, Secretary and Editor should be separated.

4th. The offices of Secretary and Editor should be filled by men of clean professional records, with honestly-acquired regular degrees, who are not creatures of the present machine.

5th. The personnel of the Board of Trustees should be almost entirely changed. The present incumbents are nearly all mere wheels and cogs in the machine.

6th. The number of Trustees should be increased. The A. M. A. has outgrown the present Board. The Trustees should serve but one year.

7th. There should be at least three local Trustees, acting as a supervising business committee. At present there is but one, whose chief function is to endorse the plans and acts of the Secretary General-Editor-Manager. Three Trustees would be harder for a machine to handle than one, and with open elections there would

be a chance of some hard-headed, practical and independent men with sound business principles being elected.

8th. The President, Secretary, Trustees and other important officers should be selected by ballot of the members in attendance. The nominations should be made on the first day and the voting done at the place of registration on the succeeding days.

9th. Provision should be made for a limited number of nominations for each office by petition.

10th. Bonds should be provided for all officers upon whose shoulders rests financial responsibility. At present the Treasurer only is under bond.

11th. Full itemized accounts of our business and financial affairs should be rendered the members yearly. The machine of the A. M. A. is power drunk and money mad, and sooner or later the notorious insurance scandals are likely to be duplicated by some-things nearer home. Human nature, be it essentially corrupt or primarily pure, requires a check system. We have established a "Kingdom of the Dollar" that is all our own, and in that kingdom hungry-eyed Graft sooner or later will crowd himself onto the throne and sit beside Ambition. *Remember that we have a business of about \$500,000 per year and an expense account of nearly \$400,000*

12. A membership committee should be appointed, to hold office only one year. At present the Secretary General is here absolute dictator.

13th. A certain amount of space in the columns of the *Journal* should be set apart for free criticism, queries and comments by the rank and file. Criticism of the policies and methods of the Association should be especially invited. There is at present an alleged department of query and comment. This department is a joke. Let him who does not think so, send in an adverse criticism of the machine and see what will happen to it.

14th. The Editor should be a man who is capable of writing editorials. At present we are expending large sums on special editorial work. The Editor should not be the business manager of the JOURNAL, but a cultured, scholarly, scientific regular physician, with a clean professional record, who would devote his time solely to editorial work. Under proper conditions and restrictions

and a suitably reasonable salary the present Editor might make a good business manager. There would be no objection to him in a lay business capacity, in which he would not obtrude himself into the ethical, political, editorial or professional limelight. Exit Czar and enter employe. Speed the day!

15th. The initiative and referendum should be adopted as a protection for the suffrages of the members at large.

16th. Provision should be made for fairness in elections. They should be so arranged that no less than two candidates would be nominated for each office. This would in future prevent the choking off of nominations and the machine selection of officers.

17th. No member should be expelled without a fair trial and a full hearing, the proceedings being published in detail in the columns of the JOURNAL. This plan would obviate such damnable outrages as that perpetrated by the Secretary and his henchmen upon Dr. Young.

18th. The Constitution should provide that no person holding an office of trust or legislation in the Association shall be eligible to serve as a member of the House of Delegates of either the State or National Associations. In the A. M. A. a man may now serve as Treasurer or Trustee, State Delegate and Elector and A. M. A. Delegate and Elector, voting for himself for two offices in two electoral bodies.

19th. To strike directly at the root of the political evils which have cast their malevolent spell over the A. M. A. Delegates from subsidiary societies should be elected by direct ballot of the attending members. The governing body of the A. M. A. cannot rise higher than its source. At present the fine work of the Association machine is begun in the State societies. It is here that the first blow is struck at our professional liberties. The little cogs and wheels should receive an application of democratic grease if we are to hope for proper regulation of the major machine.

20th. If we are to continue to have a "House of Lords," let us carry out our British imitation to its logical ultimate;—by all means let us have a House of Commons. If we are to pretend an American virtue though we have it not, let us have a House of Representatives as well as a Senate.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Southern Medical Association.

The Southern Medical Association has arranged to meet in New Orleans on November 9, 10 and 11, and the New Orleans profession is preparing to greet them cordially and fraternally. A variety of simple entertainments has been provided and it is expected that the program will be one of general interest. The work is planned in sections and the topics to be discussed cover some of the recent problems in medicine of the Southern States.

The JOURNAL wishes to add its welcome to that of the profession and believes that in doing so it voices the good wishes of its collaborators and readers for a successful meeting.

Sanitary Education of the Public.

Early in the nineteenth century the idea of public health protection arose in this country. As the investigation of vital statistics advanced, the scope of public needs in sanitary matters grew more and more evident. The natural organization of generally systematized methods for accomplishing the ends of the public need resulted.

For years the spirit of the people was either indifferent or antagonistic to the efforts of the scientific and other bodies striving to better conditions.

To-day the public has joined with local, State and National authorities in various movements against the commoner unsanitary conditions and against disease as found in man. Much is due to the secular and periodic press for their dissemination of knowledge regarding proletarian and public deficiencies in such matters. Such educational articles grow more frequent every day and the reading public must demand them or they would not be supplied.

The initial efforts at educating the public by tracts and lectures has borne fruit and the practice of both methods of propaganda has wonderfully increased. Since Louisiana's first efforts in this line, many States have followed the example and with good results.

Many States have constituted commissions regulating food supplies and others have created officials whose entire function is to educate the masses in health matters.

Sanitary science has broadened its usefulness among the public and the average individual of intelligence is a constituted coadjutor in maintaining a higher plane of health. The experiences in epidemics of fatal diseases of a century ago would be impossible in any organized community to-day. The plague in San Francisco demonstrated this—after the city got busy with the method and practice for its eradication.

Not only is the laboratory end of scientific research developing means to reduce mortality records—but a receptive public is now willing to aid. Diseases of contagious type are controlled and the war against them is universal. Even with so great a plague as tuberculosis, the efforts in education and in hygienic principles have already borne fruit. Nations have joined together in the crusade.

The study of all diseases which menace the life of the human race is not confined to the laboratory or sanctum of the physician, but is common with the laity as well—aiding in their own way in furthering the result. Philanthropic millionaires have established research emporiums, where constant study is going on, and the governments everywhere are contributing aid to the cause.

Another hundred years may find new fields for study, new enemies of man to conquer—but when these years have rolled by, there will be a better equipment, concerted and crystallized, prepared to meet the attack, a preparation born of education and established by a broad community sense in the distribution of knowledge.

A Recusal.

The JOURNAL is never responsible for the opinions contained in contributions and communications, unless editorial mention is made to that effect.

This must apply to Dr. Lydston's communication appearing in this issue. The JOURNAL prints it as a courtesy and in fairness to him, but prefers to express its views on the subjects touched upon in its own way and at its own time.

Abstracts, Extracts and Miscellany.

Department of Surgery.

In Charge of DR. FELIX A. LARUE and DR. P. A. THIBAUT, New Orleans.

RESECTION OF THE LIVER.—(Mr. Riche, in *Revue de Chirurgie*, Jan. 10, 1909,) reported to the Paris Surgical Society the case of a man at 42 years, who, after an attack of the grip had a painful tumor in the right hypocondrium. Mr. Riche, in view of the pain and fever resistant to all medication and thinking he was confronted with an infected gallbladder, decided to intervene.

On opening the abdomen that organ was intact, but on the under and posterior surface of the liver a tumor, the size of a small orange and fluctuating, resembling a hydatid cyst, was found. Aspiration revealed nothing; it was a cancer. Mr. Riche excised the mass by encircling it with three large cat gut sutures, tightening gently and freely incising the hepatic tissue between the tumor and the sutures. Two compresses were left in contact with the surface of the liver, the rest of the wound being closed. Local healing took place, but the patient gradually weakened and succumbed a month after the operation. No autopsy could be held, but Mr. Riche considered the growth as most probably secondary. Histological examinations of the specimen could not clear up that point.

Mr. Morestin said that as there was no ratio between that isolated growth of the liver and the general symptoms, some other latent lesion must have existed.

Primary hepatic cancers are extremely rare. He would not in a similar case have extirpated the tumor, admitting the harmless results of Riche's interference.

Mr. Bouligoux, however, concurred with Mr. Riche, for he had acted likewise in a case, the histologists not having been able to assert whether cancer, tuberculosis or syphilis was present.

LARUE.

HEART REVIVING.—Pierre Mocquet (in *Revue de Chirurgie*, June, 1909,) concludes his lengthy and interesting article by saying: "The various methods of heart resuscitation must be based, first, on their mode of action, second, on their technic, and, third, on the cause of the heart stoppage."

These methods are of no avail if the central heart and pulmonary ventilation are not equally maintained.

Rythmic compressions of the heart seem at present to be the most efficacious means of exciting the heart to contract when it has completely stopped. Cardiac massage must be performed through the abdomino-subdiaphragmatic route unless the heart can be grasped through a previously made thoracic wound. In chloroform syncope massage may succeed when done within fifteen minutes after the heart stops; when an additional wound has not been made; it gives better results in the late toxic than in the reflex syncope.

Adrenalin appears to be a valuable stimulant to the heart muscle; it can be used alone or combined with massage.

Intravenous injections of serum is indicated in all forms of toxic syncope, as it does not only increase blood pressure, but dilutes the blood.

Lack of observation prevents us from knowing whether intra-arterial injections in man, to irrigate the myocardium, are efficacious; from experiments on animals such injections when given early seem to act well.

Intra venous injection alone is not capable of exciting the heart action when completely arrested; it is without doubt a useful aid to massage of the heart.

The indications for intra-cardiac injections are, owing to the technic and mode of action, more limited; they are, it seems, of value when the heart stops due to no inflow of blood in the cavities.

For chloroform syncope Sylvester's artificial respiration should be at once performed, and preparations for additional measures be taken; the efficacy of rythmical traction of the tongue is questionable. Intra-venous injections are useless if the heart has stopped. A slight color to the face and some life to the eyes, even at times a semblance of respiratory movements should, according to Rochard, guide the surgeon in performing artificial respiration. When

syncope takes place in the initial stage with extreme pallor, direct pulmonary insufflation by intubating the larynx and massaging the chest should both be resorted to.

When after the usual methods have been used, no improvement can be seen, direct insufflation and the heart massage must be quickly done through the already opened abdomen or thorax. Heart massage is harmless; intravenous injections of normal serum and adrenalin must also be given.

Should the heart be inaccessible, in view of the gravity of the operative trauma and the failures attending, it would be wiser to adopt simpler means.

Either following Crile's technic, direct insufflation, infusion of serum and adrenalin, binding tightly the extremities of the trunk, energetic massage of the precordia; or Spina's intra-arterial injection of Locke's serum, which, according to Kronacker, unlike simple serum, does not paralyse the cardiac plexus. Branches of the left carotid or sub-clavian arteries should be respected.

In asphyxia, heart resuscitation being more difficult, massage combined with lung insufflation and intra-venous injections of serum and adrenalin is indicated.

In heart injuries, intra-cardiac injections of serum, combined, if necessary, with the massage, seems to be the best means to recall pulsations.

One should proceed methodically, not utilizing at random the means at our command, and thus only will the future prove to us their value and indications.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

THE MANAGEMENT OF LABOR OBSTRUCTED BY PELVIC DISPROPORTION.—Richard C. Norris (*Surgery, Gynecology and Obstetrics*) asks if by any or all known methods of study before labor can we determine with scientific and unerring precision the course of treatment for all cases of the relative indication.

The present wide interest in this subject, the varying opinions

and practice of men of wide experience and their varied results at once negative that question, and the simple truth of the matter is that in individual cases there is more than one fixed plan of treatment that will prove successful for both mother and child, and no one plan can be determined as the only one to be followed. It is unfortunate that so much stress is placed upon external pelvimetry as a means of determining the size of the pelvis. Its value for the purpose is small indeed. It can determine variations in shape and should always be looked upon as merely the first stage of the examination to be followed by an internal examination when there is the slightest evidence of pelvic irregularity. An anesthetic is always necessary when the promontory is not readily reached by the index finger.

More than 80 per cent. of patients showing moderate pelvic disproportion, i. e., showing abnormal shape and a conjugate say from 8 to 10 c. m., deliver themselves without assistance.

A test labor at term with this range of disproportion will require the dangerous major operation in about 5 per cent. of the cases. Can the induction of labor in all moderate cases prevent this number of dangerous major operations? Dr. Norris' experience is that it can. In 3,000 consecutive cases he has not once performed Cesarean section, and labor has been induced in every case of moderate disproportion entering the hospital before term. There has been no material mortality in these cases and the infant mortality was 10 per cent. The infant mortality in unobstructed labors has been about 7 per cent.

The maternal mortality of skillfully induced labor after the eighth month of pregnancy in 100 cases certainly is not so great as that of the necessary cases of either Cesarean section or pubiotomy performed late in labor, at term.

The infant mortality of the late Cesarean section certainly would be the smallest, but that of late pubiotomy would not be far below, if it would equal the 10 per cent. infant mortality of induced labor.

MILLER.

Medical News Items.

MEETING OF THE EAST FELICIANA PARISH MEDICAL SOCIETY.—The regular meeting of this Society was held in Clinton, October 6, at the office of Dr. R. P. Jones. Owing to the recent storm and blockaded roads the attendance was not as large as usual, only fourteen members being present. Several papers on medical subjects were presented, however, notably that of Dr. J. W. Lea, of Jackson, on the "Powell Treatment of Ulcers of the Leg." Dr. Chas. McVea, President of the State Society, was present, and the meeting was followed by a banquet at the Rist House. This Society meets every other month and is one of the liveliest in the State.

EIGHTEENTH ANNUAL MEETING OF THE ASSOCIATION OF MILITARY SURGEONS.—The eighteenth annual meeting of the Association of Military Surgeons of the U. S. A. convened at Washington in October. Surgeon-General Rixey, U. S. A., delivered the annual address.

MEETING OF THE MEDICAL ASSOCIATION OF SOUTHWEST TEXAS.—The meeting of the Medical Association of Southwest Texas will take place in San Antonio, November 9-11. This live society will meet during the Fair and a special rate will be made by the railroads.

STATE BOARD OF EXAMINERS FOR ALABAMA.—At the last meeting of the State Board of Examiners for Alabama there were 150 applicants; of these 73 were successful, or 48.66 per cent. Only one negro passed. According to the action of the State Medical Association at its last meeting in April of this year, this is the last examination at which under-graduates will be permitted to apply.

RESOLUTION PASSED BY THE OKLAHOMA STATE BOARD OF MEDICAL EXAMINERS.—The Oklahoma State Board of Medical Examiners has passed a resolution refusing to license doctors suffering from pulmonary tuberculosis.

LECTURES FOR THE NATCHEZ HIGH SCHOOL.—The Natchez High School has arranged with Adams County Medical Society for a series of lectures to be delivered before the pupils of the

school once a week. The first lecture will be delivered by Dr. T. B. Lewis. His subject will be "A Talk on Foods, Their Nutritive Value and Principles."

IMPORTANT NOTICE.—It is reported that certain individuals have been representing themselves as the agent of the "Lippincott Publishing Company," and taking orders in a fraudulent way throughout Louisiana recently. The J. B. Lippincott Company, of Philadelphia, denies responsibility for the actions of these people and authorizes the statement that the said agents have no connection with their house. This notice is given for the benefit of anyone that may be approached by said parties.

THE LOUISIANA STATE BOARD OF HEALTH has recently completed an official list of all registered practitioners of medicine in the State. The total number of physicians is 2,033, of which number 701 are in Orleans parish alone. According to the estimate made June 1, 1906, by the Bureau of Census, the population of Louisiana is 1,539,449, and making a calculation based on this estimate, it is shown that there is one physician for every 752 persons in the State. In Orleans parish, making a similar calculation based on a population of 350,000, shows there is one physician for every 495 persons in that city.

TO ISOLATE PELLAGRINS.—At a recent meeting of the State Board of Health of Tennessee, held at Nashville, it was decided to order the isolation of all cases of pellagra now existing or that may be discovered in future. The cities in which such cases are found must meet the expenses of such isolation. The Board expressed the belief that the disease is communicable.

RESULTS OF LOUISIANA STATE BOARD OF MEDICAL EXAMINERS.—The Secretary of the Board, Dr. Felix A. Larue, officially reports to the JOURNAL the following results of the examinations held on October 1 and 2: Passed—Dr. T. C. Honea, University of Nashville, '09, Shreveport, La.; Dr. T. B. Tooke, University of Nashville, '09, Gilliam, La.; Dr. Mary V. Church, Kansas Medical College, '94, Alexandria, La.; Dr. W. B. Hailey, College of Physicians and Surgeons, Little Rock, '09, Jena, La.; Dr. F. A. Buvens, Memphis Hospital Medical College, '08, Many, La.; Dr. W. McDade, Memphis Hospital Medical College, '09, Houghton, La.; Dr. J. L. Pitmon, Memphis Hospital Medical College, '08,

Winnsboro, La.; Dr. E. O. Bond, Memphis Hospital Medical College, '09, Shongaloo, La.; Dr. W. P. Bond, Memphis Hospital Medical College, '01, Shongaloo, La.; Dr. G. E. Stovall, Memphis Hospital Medical College, '09, Stovall, La.; Dr. J. M. Newson, Memphis Hospital Medical College, Hickory Valley, La.; Dr. E. Tugwell, University of Nashville, '08, Conway, La.; Dr. O. E. Glover, Kentucky School of Medicine, '96, Bernice, La.; Dr. D. B. Cliffe, Vanderbilt University, '94, Transylvania, La.; Dr. C. S. McDonald, University of Arkansas, '05, Lilly, La.; Dr. N. S. Holmes, Maryland Medical College, '03, Cadeville, La.; Dr. C. W. Kibbe, University of the South, '01, Abbeville, La.; Dr. J. E. Simms (colored), Flint University, '09, New Orleans, La.; Dr. E. C. Thornhill (colored), Flint University, '09, New Orleans, La. Failures—4. Twelve midwives (7 whites, 5 colored,) were granted certificates.

Dr. J. B. Patterson, Clarks, La., was granted a permanent license to practice on basis of reciprocity with Missouri; graduated from Medical Department, Washington University, St. Louis, '07.

HOSPITAL NEEDED AT THE JETTIES.—Dr. Von Ezdorf, physician in charge of the quarantine station at the Jetties, says a hospital is needed and Congress will be asked to make an appropriation for it.

OBSTETRIC TEACHING.—The President of the American Gynecological Society has appointed a Committee to report at the next annual meeting in Washington, on the Present Status of Obstetrical Teaching in Europe and America, and to recommend improvements in the scope and character of the teaching of Obstetrics in America. The Committee consists of the Professors of Obstetrics in Columbia University, University of Pennsylvania, Harvard, Jefferson Medical College, John Hopkins University, Cornell University and the University of Chicago. Communications from anyone interested in the subject will be gladly received by the Chairman of the Committee, Dr. B. C. Hirst, 1821 Spruce St., Philadelphia, Pa.

MEDICAL SUPERVISOR, INDIAN SERVICE (FIELD).—The United States Civil Service Commission announces an examination on November 24, 1909, to secure eligibles from which to make cer-

tification to fill a vacancy in the position of medical supervisor in the Indian field service at \$250 a month and expenses, and vacancies requiring similar qualifications as they may occur in that service, unless it shall be decided in the interests of the service to fill the vacancy by promotion, reinstatement, or transfer. The examination will consist of the subjects mentioned below, weighted as indicated:

SUBJECTS.	Weights.
1. Letter-writing (medical subjects)	5
2. Anatomy and physiology	5
3. Chemistry, materia medica, and therapeutics.....	5
4. Surgery, general and special.....	10
5. Hygiene and practice of medicine.....	15
6. Pathology and bacteriology	10
7. Training and experience, with special reference to tuberculosis and trachoma	50
Total.....	100

Applicants must show in their applications that they have had at least three years' experience in medicine since graduation from a reputable medical college, and have had special training and experience in connection with tuberculosis and trachoma.

Applicants who fail to indicate in their applications that they have had sufficient training and experience to entitle them to a rating of 70 per cent in the seventh subject will not be admitted to the examination.

Applicants must accompany their applications with certificates from reputable physicians showing that they are free from tuberculosis in any and every form.

Age limit, 20 years or over on the date of the examination.

This examination is open to all citizens of the United State who comply with the requirements.

This announcement contains all information which is communicated to applicants regarding the scope of the examination, the vacancy or vacancies to be filled, and the qualifications required.

Applicants should apply to the United States Civil Service Commission, Washington, D. C., for Application Form 1312. No application will be accepted unless properly executed and filed with the Commission at Washington prior to the hour of closing business on November 13, 1909. In applying for this examination the exact title as given at the head of this announcement should be used in the application.

OPENING OF THE MISSISSIPPI MEDICAL COLLEGE.—The University of Mississippi Medical College had its initial opening September 30. Governor E. F. Noel made the opening address.

LARGE AMERICAN ATTENDANCE AT THE INTERNATIONAL MEDICAL CONGRESS.—More Americans attended the International Medical Congress in Budapest than at any other previous meeting.

DECREASE OF LEPERS IN NORWAY.—In 1865 there were 2,870 lepers in Norway. Now there are about 400.

NEGRO PHYSICIANS IN THE UNITED STATES.—There are 3,500 negro physicians in the United States.

GRADUATION OF NURSES AT THE TOURO INFIRMARY.—On October 1 the Touro Infirmary graduated 16 nurses. Rabbi Leucht made an address and presented the diplomas.

CLIPPINGS.—Physicians at the Charity Hospital, who have been administering to patients suffering from dog bites, to the number of one hundred or more a month, are of the opinion that dogs, as well as cattle, should be impounded when they are found running at large through the streets.

The Mississippi State Board of Pharmaceutical Examiners lately issued an open letter to the citizenship of the State asking co-operation in eradicating unlicensed druggists.

Over four hundred patients have presented themselves for treatment at the Antituberculosis Clinic on Tulane avenue.

PERSONALS.—Dr. E. L. McGehee has returned from Asheville, N. C., where he has been studying the conditions of tuberculosis.

Dr. G. F. Cocker is home again, after spending nearly two months touring through the West and Northwest.

On October 12 the seventieth birthday of Mr. Isaac Delgado was celebrated at the Charity Hospital. Mr. Delgado donated the splendid Delgado Annex of the Charity Hospital about a year ago.

Prof. Fullenborn, of the School of Tropical Medicine at Hamburg, Germany, was a caller at the City Board of Health office recently. Dr. Fullenborn was here to learn how the mosquito menace has been met.

Judge E. D. Saunders gave an interesting address to the Or-

leans Parish Medical Society on country doctors, advocating the establishment of branch hospitals in the country, these to be under the direction of the Charity Hospital.

Dr. E. J. Graner has been appointed a member of the Sewerage and Water Board.

Dr. W. W. Leake has been appointed Assistant-Surgeon of the Illinois Central Railroad.

The graduate nurses of the Alexandria Sanitarium have organized an alumnae association.

Dr. J. M. Lindsey has given several lectures on Tuberculosis in the city.

Dr. R. Lyons has returned from Europe.

Drs. LeBeuf and Reiss have returned from Tate Springs, Tenn.

Dr. P. L. Thibaut has returned from the mountains of North Carolina.

Dr. R. W. Salter will return from his vacation November 5.

Dr. Edith Loeber, of this city, is spending her vacation in the East.

Mayor Behrman will deliver the address of welcome before the Southern Medical Association that meets in this city November 9-11.

Dr. W. H. Seeman, who has spent the summer studying Tropical Medicine in Europe, has returned. He will be assistant to Dr. E. M. Dupaquier, in the Polyclinic.

Surgeon-General Wyman, of the United States Public Health and Marine Hospital Service, has decided to issue a weekly bulletin dealing exclusively with pellagra.

Dr. W. R. Card, formerly Assistant Superintendent of the East Mississippi Hospital, has assumed the superintendency of the Gulf Coast Health Resort on the Gulf of Mexico, at Biloxi, Mississippi, owned by Dr. H. M. Folkes. This institution has been largely remodeled and is now well equipped and deserves the consideration of home people.

REMOVALS.—Dr. Paul Michinard, from No. 624 Gravier street to No. 734 Audubon Building; Dr. C. Wm. Groetsch, from No. 830 Canal street to No. 734 Audubon Building; Dr. Paul Gelpi, from No. 211 Camp street to No. 718 Audubon Building; Dr. Ada F. Kiblinger, from No. 603 Caffin avenue to No. 714 Audubon Building; Dr. T. J. Dimitry, from No. 213 Hennen Building to No. 714 Audubon Building; Dr. W. W. Leake, from No. 830

Canal street to No. 714 Audubon Building; Dr. W. H. Robin, from No. 211 Camp street to No. 712 Audubon Building; Dr. A. Weber, from No. 211 Camp street to No. 712 Audubon Building; Dr. S. L. Theard, from No. 211 Camp street to No. 712 Audubon Building; Dr. C. A. Weis, from No. 107 Camp street to 728 Audubon Building; Dr. H. N. Kostmayer, from No. 5360 Chestnut street to No. 714 Audubon Building; Dr. C. J. McGrane, from No. 2404 Dauphine street to No. 728 Audubon Building; Dr. A. Noha, from No. 2404 Dauphine street to No. 728 Audubon Building; Dr. H. P. Jones, from No. 404 Medical Building to No. 602 Perrin Building; Dr. E. H. Walet, from No. 107 Camp street to No. 621 Macheca Building; Dr. H. B. Gessner, from No. 107 Camp street to No. 1209 Maison Blanche Building; Dr. S. K. Simon, from No. 107 Camp street to No. 1209 Maison Blanche Building; Dr. J. D. Tuten, from No. 107 Camp street to No. 1209 Maison Blanche Building; Dr. F. Dunn, from No. 830 Canal street to No. 1228 Maison Blanche Building; Dr. J. F. Scott, from No. 204 Carondelet street to No. 1228 Maison Blanche Building; Dr. John Smyth, from No. 624 Gravier street to No. 1113 Maison Blanche Building; Dr. G. S. Brown, from No. 617 Macheca Building to No. 1227 Maison Blanche Building; Dr. E. L. McGehee, Sr., from No. 617 Macheca Building to No. 1227 Maison Blanche Building; Dr. Jas. Kilbourn, from St. Francisville, La., to Bell's Store; Dr. J. S. Gibson, from Mendenhall, Miss., to Weathersby; Dr. J. S. Davis, from Blooming Grove, Tex., to Dallas; Dr. A. V. Rutledge, from Melissa, Tex., to Denison. Dr. L. A. Cockfield, from **Monroe, La., to Wapaneeka, Okla.**

DIED.—On October 9, 1909, at Plaisance, La., Dr. O. E. Kauffman. The Doctor graduated from Tulane in 1904.

On September 26, 1909, at Utica, Miss., Dr. W. G. Austin, at the age of 41.

On October 8, 1909, Mr. Sidney Lee, at the age of 23. Mr. Lee was a Sophomore medical student at Tulane and a son of Mr. J. Fergus Lee, of New Orleans.

MARRIED.—At Wayside, Miss., September 3, 1909, Dr. T. E. Worthington to Miss Celeste Scudder.

The wedding of Dr. William W. Leake to Miss Virginia de Neven is announced to take place at Chicago on November 3, 1909.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

History of Yellow Fever, by GEORGE AUGUSTIN, with Collaboration of DR. G. FARRAR PATTON, QUITMAN KOHNKE, O. L. POTHIER, HAMILTON P. JONES, L. F. SALOMON, CHARLES CHASSAIGNAC, FRED J. MAYER, HENRY DICKSON BRUNS, LOUIS G. LEBEUF, JULES LAZARD and SIDNEY J. THEARD. Published for the author by Searcy & Pfaff, New Orleans, 1909.

It is fittingly appropriate that so important a compilation of material on the subject of Yellow Fever should come from New Orleans, and it is highly creditable to Mr. George Augustin that he should have worked out to so excellent a conclusion the task evident in this published volume.

Additional attraction attaches with the survey of the list of contributors in the purely medical sections of the work, representing all of the present generations of New Orleans physicians, experienced in more than one epidemic of the disease treated upon.

A graceful compliment is paid Dr. Charles Chassaignac in the dedication of the volume, and one all the more deserved because of his service in this particular disease, not only in the rank and file of those who have fought it in the field, but also because of his former identification with the literature of the disease, through the classic translation of the work on Yellow Fever originally written in French by Dr. Touatre, another distinguished New Orleans medico.

The frontispiece is especially noteworthy and commendable, as it pays a tribute to the memory of Dr. Quitman Kohnke, sometime a most efficient Health Officer of New Orleans and one of the first to sound the tocsin against the stegomyia.

Each of the divisions of this book deserves more than passing notice, not only because it is the work of New Orleans men, but because this is the first comprehensive presentation of Yellow Fever in an English text.

The first three chapters are largely introductory, and, from the medical point of view, might be omitted in a work on Yellow Fever. The author, however, logically points out that the book is broadly written in the historical chapters in order that it may prove educational to the non-professional reader, and at the same time may prove not uninteresting to the medical man who may fancy historical reviews. Besides, the material is presentable and carefully prepared.

Of more direct interest is the review of the insect theories of diseases in Chapter IV. Here are presented all stages of the development of the mosquito theory, the early American authorities being quoted extensively.

Then follows in detail the discussion of the morbidity and mortality rates of Yellow Fever as seen locally, and there is also given a complete nomenclature of this disease. The source and origin, and later spread, of Yellow Fever is taken up, and a careful compilation is given of the history of Yellow Fever in every locality in every country where it has ever been known to have appeared. To this summary, over nine hundred pages are devoted, showing the extensive field covered in the research into the sources of information regarding the countries in which Yellow Fever has prevailed.

The last one hundred and sixty pages are devoted to a miscellaneous collection of articles from the pens of the men enumerated on the title page of the book. Dr. Bruns gives a sketch of the organization of sanitary measures by citizens during the epidemic of 1905. Dr. Chassaignac deals with the conclusions drawn from the epidemic of 1905, especially the economic questions which arose in educating the ignorant to the causes of the disease and its prevention, while his whole article is a plea for proper sanitary measures, especially anent the mosquito. Dr. LeBeuf makes an historical sketch of the work of the medical profession in 1905. Dr. Lazard presents a statistical review of the epidemic of 1905, with tables showing the results of the epidemic in mortality figures. Dr. Théard deals with the requirements of the mosquito doctrine. A most careful article on the etiology of Yellow Fever has been prepared by Dr. Patton, dealing with the history of the development of the present theories of the disease.

Dr. Kohnke's paper on the sanitary prevention of Yellow Fever should be read by all who wish to respect the memory of the man and his efforts in this particular cause.

The gross pathology in Yellow Fever is briefly but clearly presented by Dr. O. L. Pothier.

Chapters on Diagnosis by Dr. H. P. Jones, on Prognosis by Dr. Chassaignac, on Treatment by Dr. Salomon, and on Education in Hygiene by Dr. Fred J. Mayer, conclude the book.

The impressions which prevail after the review of this book emphasize an appreciation of the laborious task of the author and compiler, all for the establishment of a memorial to the past history of Louisiana and New Orleans as related to the yellow scourge. Further, the formal records of the work of individuals who have helped in ridding the city and State of such a burden are established.

It is to be regretted that only the more recent epidemic should have been so fully studied. The "*History of Yellow Fever*" should, coming out of New Orleans, extensively review the local history, if any part of that local history is extensively undertaken at all. Nevertheless, it is an encouraging outlook for the future literary products of the local medical guild when so voluminous a work has emanated so quietly and successfully and to so full a purpose.

DYER.

History of Yellow Fever. By GEORGE AUGUSTIN.

It is not often that we have an opportunity to notice a book issuing from a New Orleans press, and it is with pleasure, therefore, that we apply ourselves to the task of reviewing the present work.

Up to the time of Dr. Carlos Finlay (1881) and the American Army Surgeons (1898), the literature of yellow fever revolved in a circle, and a rather misty one at that. A vast mass of historical data was gathered, and a great deal of misdirected energy was spent in trying to grapple intelligently with the pestilence that overhung tropical America, and retarded for centuries the development of some of the fairest portions of the globe. Nowadays, in the light of Finlay's discovery, we walk securely, knowing that we can throttle the disease, by suitable measures, whenever it dares to raise its head. Carlos Finlay's discovery was epochal. It brought one chapter on yellow fever to an abrupt close, and made antiquated and historical all that had gone before. The American Army Surgeons experimented along the lines laid down by him, and offered their lives on the altar of humanity. Finlay did not die a martyr. He did something just as heroic: He bore the ridicule of his contemporaries, and lived to enjoy the triumph of the faith that was in him.

As said before, Finlay made all previous work of yellow fever anti-

quoted, but it is to be borne in mind that much of that work was valuable, and, as history, it should not be allowed to pass into oblivion. Mr. Augustin has carefully and laboriously gathered a mountain of materials, from which he produced a systematic history of the outbreaks of yellow fever in all of the countries in which it has been known to exist. Every invaded country is discussed; the dates of invasions, mortality, etc., are given; and all the information available is systematically arranged, so that any inquirer can easily find what he needs to know concerning the prevalence of yellow fever in any country whatever and any time in the historic period. This part of the book takes up nearly a thousand pages and forms the backbone of the work. Mr. Augustin's labor though one of compilation and classification, and not original discovery, has been well done, and will stand as a monument to his perseverance and adroitness.

The book is enriched by a number of monographs by some of our local medical lights, and one by Colonel Gorgas, U. S. A., on the "Panama Canal and Yellow Fever." Dr. Gorgas points out that Asia stands in no danger of infection because the time required for a trans-Pacific voyage is greater than the lifetime of the mosquito that carries the infection.

The late Dr. Quitman Kohnke, former Health Officer of the City of New Orleans, has contributed a valuable chapter on "the Sanitary Prevention of Yellow Fever." This worthy gentleman closed a useful and stainless career before Mr. Augustin's work was published. The value of his services is becoming more appreciated, now that the storms and passions of his day have died out and we are enabled to view his life in the retrospect.

The other articles are also well worthy of perusal, although we regret to notice the omission of all reference to Dr. Bennett Dowles as the discoverer of the *post mortem* rise of temperature in yellow fever. Dr. Dowles seems to have become well-nigh forgotten, although his portrait occupies a post of honor in the Charity Hospital. Dr. H. D. Schmidt, late Pathologist of the Charity Hospital, was also one of the original investigators of yellow fever. Fuller recognition might fittingly have been accorded to him. But these omissions do not in any way impair the value of the material that has been presented to the readers.

McSHANE.

Gonorrhea, Its Diagnosis and Treatment. By FREDERICK BAUMANN, Ph. D., M. D. D. Appleton & Co., New York and London.

A digest of some two hundred pages, duodecimo, of the diagnosis and treatment of gonorrhea of the lower genito-urinary tract. The matter is culled mainly from the works of Oberlander and of Kollman. The little volume is intended for students and can be useful only to such.

C. C.

Disorders of the Bladder. By FOLLEN CABOT, M. D. E. B. Treat & Co., New York.

The author himself gives as the chief object of his book the teaching to the general practitioner of the principal methods of diagnosing and treating disorders of the urinary bladder. The scope is too limited to make the work of much interest to the specialist or the up-to-date general surgeon. The technique of cystoscopy furnishes an interesting though concise chapter.

C. C.

The Sexual Instinct. By JAMES FOSTER SCOTT, B. A., M. D., C. M. E. B. Treat & Co., New York.

When the first edition appeared, about ten years ago, we published a lengthy and commendatory notice of this work. There are only a few

changes in the present edition, and they are in the main for the better. The table of contents has been replaced by an index which is probably more useful. The chapter on Perversions has very sensibly been dropped; it should not be interesting except to experts and specialists, who have access to more elaborate works on the subject.

Mainly intended for the instruction of the laity, this book can with profit be read also by the physician, who may find arguments in favor of chastity therein. Quoting from the previous review, "Fathers should be advised to study it, not only for their own sake, but for that of their progeny."

C. C.

Diseases of the Genito-Urinary Organs and the Kidney. By ROBERT H. GREEN, M. D., and HARLOW BROOKS, M. D. W. B. Saunders Co., Philadelphia and London.

An octavo of over five hundred pages, this work is as complete as its size will permit, when the vastness and importance of the subjects included are taken into account.

Physician and surgeon have collaborated in order that both aspects of the various questions discussed might be given due weight.

The book is systematically divided into thirty chapters. The first four comprise a study of various methods of examination; the next twelve, the kidney and its diseases and injuries; two are devoted to the ureters; as many to the bladder; four more to the penis, the male and the female urethra; the seminal vesicles and the prostate take up three chapters, while two are devoted to the testicles, and the last one deals with sexual neuroses.

All in all, it is a useful book to those who want a fairly comprehensive work of moderate size.

C. C.

Manual of Operative Surgery, by JOHN F. BINNIE, A. M. M. C. Blakiston's Son & Co., Philadelphia, 1909.

This is the first volume to Binnie's Operative Surgery, comprising operations on the Head, Neck, Nerves, Trunk and Genito-Urinary System. It is presented in a somewhat condensed, but none the less thorough and practical, form. It abounds with illustrations, some original, others chosen with precision from various text-books, embodying operations on the extremities, etc.

The second volume, now in preparation, will no doubt receive the same merited approval from the profession as Volume I.

LARUE.

A Text-Book on Practical Obstetrics, by EGBERT H. GRANDIN, A. B., M. D., with the Collaboration of GEORGE W. JARMAN, M. D., and SIMON MARX, M. D. Fourth edition, revised and enlarged. F. A. Davis Co., publishers, Philadelphia, 1909.

The first edition of this work appeared in 1895. The present edition constitutes practically a new book, such have been the vital changes in practice and in technique. The latest views on bacteriology and the toxemias have been added, and the entire subject of labor and of the puerperal state has been rewritten.

The book is profusely illustrated, the subject-matter well condensed and the original aim of the work has been maintained—that is to say, brevity, accuracy and practicability.

MILLER.

A Text-Book of Practical Gynecology, by D. FOX GILLIAN, M. D. Third revised edition. F. A. Davis Co., publishers.

Dr. Gillian's well-known book has passed to the third edition, and appears with many chapters revised and several almost entirely rewritten.

He has dispensed with unnecessary references, given scant attention to moot questions, and endeavored throughout to produce a plain and practical book for the student and practitioner.

The most extensive changes will be noticed in the chapters devoted to drainage and septic peritonitis, where the recent facts and methods have been embodied.

MILLER.

Hand-Book of Obstetrics, by R. CADWALLADER, A. M., M. D. F. A. Davis Co., publishers, 1908.

Dr. Cadwallader states that he has endeavored to eliminate all possible extraneous matter and condense into a small volume the essential facts of obstetrics, and at the same time give his personal opinions and experience.

In this undertaking he has succeeded quite well and has produced a convenient volume of 370 pages, written in an interesting style and profusely illustrated.

Aside from some errors which escaped the proof-reader, and the possible confusion that might arise from the arrangement followed in some chapters, the little work is of a high order and will no doubt meet with general approval.

MILLER.

The Practical Medicine Series, Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D. The Year-Book Publishing Co., Chicago.

Volumes 4 and 5 are devoted to a review of the literature of gynecology and obstetrics for the past year. Drs. E. C. Dudley and C. von Bachelé have arranged an excellent resumé of the gynecological literature, and Jos. B. DeLee, assisted by Herbert M. Stowe, presents an interesting gist of obstetrics.

This series of year-books have grown rapidly during the past few years, and may now be considered the equal of any published.

The publishers should be encouraged in their efforts to present in a condensed form the enormous amount of medical literature now appearing daily and since the books have become a necessity to the busy practitioner this series is heartily recommended.

MILLER.

A Hand-Book of the Diseases of the Nose and Throat by EUGENE S. YONGE, M. D. (Edise). Edinburgh and London: William Green & Sons, 1909.

This is an excellent addition to the hand-books intended for the use of the general practitioner. While it is not as minute or detailed as some works that are clearly intended for specialists, it is still comprehensive enough to serve as a safe guide to the class of readers that the author designed to reach. His language is clear and precise, and the numerous illustrations, inserted as special plates, materially enhance the value of the text. We see no description of the hospital operation for tonsillectomy; but as few general practitioners would care to perform the operation, the omission cannot be regarded as a serious one.

Dr. Yonge's work deserves a place among the standard text-books recommended to students of medicine.

McSHANE.

Vaccine and Serum Therapy. Including a study of infections, theories of immunity, opsonins, and the opsonic index. By EDWIN HENRY SCHORER, B. S., M. D. Illustrated. C. V. Mosby Co., St. Louis, 1909.

This is a clear and concise digest of our actual knowledge on infections and immunity. The literature of these subjects has grown to an enormous size, and no general practitioner can hope to extract from the great mass of contributions just those things that he should know. Dr. Schorer has

performed the important task of digesting and condensing all that pertains to these subjects, and he presents the result of his labors in a readable and instructive work that every general practitioner could profitably study.

McSHANE.

Diseases of the Nose, Throat and Ear. By S. S. BISHOP, M. D. F. A. Davis Co., Chicago.

The fourth revised edition of Bishop's already well-known text-book on ear, nose and throat diseases, a book that has genuine merit and may be classed among "the six best sellers" of recent works in this branch of medicine. Up-to-date in matter of text, clearly and generously illustrated according to the modern idea, with colored plates, photographs and drawings, and inclining more to the practical than the theoretical in its teaching, it is a work well worthy of general adoption by students and general practitioners who need the practical in concise form.

DER. AND K.

Eye, Ear, Nose and Throat. By WOOD, ANDREWS and HEAD. The Year-Book Co., Chicago.

The 1909 volume of the Practical Medicine Series, published yearly as a resumé of the latest accepted theories and practice in this special branch of medicine. Many valuable points of information may be gleaned from a perusal of this little book even by those who attempt to keep up-to-date in reading periodicals, as it is a very easy matter to overlook salient, important facts in the great mass of literature published.

The annual advent of the volume is looked forward to as a news-bringer of much interest.

DER. AND K.

Bacterial Food Poisoning, Etc. By PROF. DR. A. DIEUBONNE. Translated and edited by DR. CHARLES FREDERICK BOLDUAN. Authorized translation. E. B. Treat & Co., New York.

About one hundred pages are devoted to the consideration of the origin and effects as well as the method of ascertaining the specificity of the causes of ptomain poisoning. Meat, sausages, shell fish, canned goods, &c., are presented, each with a study as to the particular organism or product responsible in each type for the symptoms and effects. An interesting contribution to a subject in which education is needed.

DYER.

Practical Bacteriology, Bloodwork and Animal Parasitology, Etc. By E. R. STRIT, Ph. G., M. D. P. Blakistons Son & Co., Philadelphia.

This little book is marked by the clear presentation of the details referring to apparatus and technic. Well chosen illustrations are found all through the text and exact methods are given of the procedure practised in laboratory experiment and study. Tabular methods for studying groups of organisms are suggested and these are freely employed to make the text clear. A logical sequence is adopted in the presentation of the whole subject—chapter after chapter comprehensively covering each group. Altogether an addition to the many laboratory guides and one which is distinctly full of merits of its own.

DYER.

Infant Feeding. By HENRY DWIGHT CHAPIN, A. M., M. D. Third Edition Revised. Wm. Wood & Co., New York.

This is more than a guide to the feeding of infants. It is a broad text on the quality and source of milk and its substitutes. The author is deservedly entitled to a respect for long service among children and

their diseases, and this is a timely work on a subject on which all medical men need advice. That a third edition has been demanded attests the value of the book itself. The material offered the physician in this book is a wholesome process of education in the physiology and in the clinical laboratory phases of infant feeding in health, and for sick children. It must stand among the authoritative works on the subject.

DYER.

Epoch-Making Contributions to Medicine, Surgery and Allied Sciences.
Collected by C. N. B. CAMAC, A. B., M. D. W. B. Saunders & Co., Philadelphia and London, 1909.

The compilation of even a limited amount of such material as this book contains is a contribution meriting the thankful appreciation of every medical man interested in the history of his art. Dr. Camac has carefully presented exact texts of articles as they originally came from the pens of such men as Harvey, Lister, Lænnec, &c., using translations from foreign tongues. The student of medicine may spend a few profitable hours in reading over the thoughtful report of the achievements of men—almost all of whom have left milestones in the road of medical progress. The publishers have added to the charm and value of the book by printing it in large type, on fine paper and with a binding worthy of its holdings. \$4.00 is the price of the book and it can be well spent by the interested reader.

DYER.

Legal Medicine and Toxicology. By R. L. EMERSON, A. B., M. D. D. Appleton & Co., New York and London.

This is a worthy addition to the number of works on the same subject. This may be particularly said of the part devoted to Toxicology, which is unusually well presented and with a clear and comprehensive method, accompanied by several graphic color illustrations. One-third of the book is given up to present laws of medical practice, a questionable disposition of so much space in a text book, as any member of the American Medical Association may obtain a *revised* compilation of these acts at a small expense. The author should correct the statement regarding the age of consent in Louisiana, raised from twelve years to sixteen more than six years ago, and through the efforts of the women of Louisiana. All of the material in the author's work in this book is comprehensively and logically arranged without being an exhaustive reference.

DYER.

Osler's Modern Medicine. Vol. 5. Lea & Febiger, Philadelphia.

Volume V includes, with illustrations, the diseases of the alimentary tract and of the usual annex diseases of the pancreas, liver, gall-bladder and biliary ducts. It also comprises a chapter on the diseases of the peritoneum and another on Glenard's disease. As a part of the whole work, it is equal to the preceding volumes, which make up the best manual on didactic medicine in the English language, so far.

E. M. D.

Physical Diagnosis. DA COSTA. W. B. Saunders Co.

The principles and practice of Physical Diagnosis are carefully treated in this work and with its 212 original illustrations the latter can be termed a most useful work.

International Clinics. Vol. IV. Eighteenth Series. J. B. Lippincott Co., Philadelphia.

The usual series of substantial writing is noted with pleasure, for

example: The articles on the advance of Physical Therapeutics, Psychotherapeutics, etiology and treatment of pernicious malaria.

Vol. I, Nineteenth Series. This volume, in addition to a number of documented papers, gives a review of the progress in Medicine during 1908, which of itself goes to make a most instructive booklet.

Vol. II, Nineteenth Series. Among the original papers found in this volume those on Psychiatry and mineral waters in the treatment of syphilis, are noted.

E. M. D.

Progressive Medicine. March 1, 1909. Lea & Febiger. Philadelphia.

This volume reviews the surgery of the head, neck and thorax infectious diseases, including acute rheumatism, influenza and croupous pneumonia, the diseases of children, rhinology and laryngology, etiology.

E. M. D.

The Malarial Fevers, Hæmoglobinuric Fever and the Blood Protozoa of Man. By CHARLES F. CRAIG, M. D. Illustrated by four colored plates, twenty-five clinical charts and twenty-eight photomicrographs and drawings. William Wood & Company, New York, 1909.

This is a comprehensive work on malarial fevers, giving the fruits of the author's personal labors on the subject, as well as setting forth the status of malaria in the scientific world in general. It deserves a place in the library of every Southern physician, for the work is of special value to this part of the country, where malaria is a matter of perennial interest.

Dr. Craig's work is thorough. It discusses the etiology of the malarial fevers; general and special pathology; symptomatology and clinical varieties; sequelæ, complications, and prognosis; diagnosis, prophylaxis, and treatment. Further, he takes up hemoglobinuric fever and describes the blood protozoa of man; the *Leishmania Donovanian* trypanosoma, spirochætæ, and histoplasma capsulatum. It is thus something more than a text-book on malarial fevers, exhaustive though it be, for the author has wisely incorporated in his work descriptions of organisms that are not malarial, but give rise to symptoms that a careless diagnostician is accustomed to load upon the much abused term "malaria."

A work like Dr. Craig's brings forcibly to the professional mind the marked changes brought about by the greater precision in diagnosis, treatment and prophylaxis, due to advanced modern methods. Anything that enables a physician to differentiate more clearly the nature of ills apparently allied, gives him power, to the same extent, of combatting the disease that confronts him.

Dr. Craig holds that the correct classification of the malarial fevers should rest upon etiology. "It is of the greatest importance in the treatment of malaria that we know to which species of plasmodium the fever is due, and this we can only know, in most instances, by an examination of the blood." Dr. Craig adopts the following classification: 1st., Tertian malaria, due to *Plasmodium vivax*. 2d., Quartan malaria, due to *Plasmodium malariae*. 3d., Tertian æstivo-autumnal malaria, due to *Plasmodium falciparum*. 4th., Quotidian æstivo-autumnal malaria, due to *Plasmodium falciparum quotidianum*. The numerous clinical charts fully illustrate the various types of the disease. Diagnosis, prophylaxis and treatment are thoroughly discussed. Altogether, Dr. Craig's work is indispensable to the practitioner in malarial districts who desires to do full justice to his patients.

McSHANE.

Publications Received.

LEA & FEBIGER, Philadelphia and New York, 1909.

Progressive Medicine, edited by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D. A Quarterly Digest of Advances, Discoveries and improvements in the Medical and Surgical Sciences. Sept. 1, 1909.)

P. BLAKISTON'S SON & CO., Philadelphia, 1909.

A Text-Book of Physiological Chemistry, by John H. Long, M. S., Sc. D. Second Edition, Revised.

Diagnostic Methods, Chemical, Bacteriological and Microscopical. by Ralph W. Webster, M. D., Ph. D.

Naval Hygiene, by James Duncan Gatewood, M. D. Prepared by the direction of the Bureau of Medicine and Surgery, and published by permission of the Navy Department.

The Practice of Medicine, A Text-Book for Practitioners and Students, with Special Reference to Diagnosis and Treatment, by James Tyson, M. D. Fifth Edition, Revised and Enlarged.

Diseases of the Nose and Throat, by Charles Huntoon Knight, A. M., M. D. Second Edition, Revised.

J. B. LIPPINCOTT & CO., Philadelphia and London, 1909.

A Hand-Book of Medical Diagnosis in Four Parts: 1. Medical Diagnosis; 2. The Methods and Their Immediate Results; 3. Symptoms and Signs; 4. The Clinical Applications. By J. C. Wilson, A. M., M. D.

International Clinics, Vol. III, Nineteenth Series, 1909. Edited by Leading Members of the Medical Profession Throughout the World.

THE YEAR-BOOK PUBLISHERS, Chicago.

Practical Medicine Series, Vol. VI, General Medicine, by Frank Billings, M. O., M. S., and J. H. Salisbury, M. D. Vol. VII, *Pediatrics*, edited by Isaac A. Abt, M. D., with the collaboration of May Michael, M. D.; *Orthopedic Surgery*, edited by John Ridlon, A. M., M. D., with the collaboration of A. Steindler, M. D.

D. APPLETON & CO., New York and London, 1909.

Practical Dietetics, With Special Reference to Diet in Disease, by W. Gilman Thompson, M. D. Fourth Edition, Enlarged and Completely Rewritten.

Tuberculosis—A Treatise by American Authors on Its Etiology, Pathology, Frequency, Semiology, Diagnosis, Prevention and Treatment. Edited by Arnold C. Klebs, M. D.

Medical Sociology—A Series of Observations Touching Upon the Sociology of Health and the Relations of Medicine to Society, by James Peter Warbasse, M. D.

WILLIAM WOOD & CO., New York, 1909.

Physical Diagnosis, by Richard C. Cabot, M. D. Fourth Edition, Revised and Enlarged.

Manual of the Diseases of the Eye, by Charles H. May, M. D. Sixth Edition, Revised.

MOFFAT, YARD & CO., New York, 1909.

Parenthood and Culture—An Outline of Eugenics, by Caleb Wm. Salesby, M. D., Ch. B., F. Z. R., Edinburg.

PAUL B. HOBER, New York, 1909.

Marriage and Disease—Being an Abridged Edition of the Health and Disease in Relation to Marriage and the Married State, by Prof. H. Senator and S. Kammer, M. D. Translated from the German by J. Dullberg, M. D.

Immunity and Specific Therapy, by W. D'Este Emery, M. D., B. Sc.

Neurasthenia, by Gilbert Ballet. Translated from the Third French Edition by P. Campbell Smith, M. D.

The Open-Air Treatment of Pulmonary Tuberculosis, by F. W. Burton-Fanning, M. D., F. R. C. P.

The Sexual Disabilities of Men, and Their Treatment, by Arthur Cooper, M. D.

MISCELLANEOUS.

Manual of Therapeutics—Referring Especially to the Products of the Pharmaceutical and Biological Laboratories of Parke, Davis & Co. Detroit, Mich., 1909.

Renewal of Life, by Thomas Bassett Keyes, M. D. (The Tubercle Press Bureau, Chicago, 1909-10.)

Third Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum, Andrew Balfour, M. D., B. Sc., F. R. C. P., Director. (Togo Publishing Company, New York.)

The Autocracy of the Trained Nurse, by W. A. Newman Dorland, A. M., M. D. (Physicians' National Board of Regents, Philadelphia, 1909.)

The Status of Nurses—A Sociological Problem, by Henry Beates, Jr., M. D. (Physicians' National Board of Regents, Philadelphia, 1909.)

The International Congress on Tuberculosis—A Report of the Delegation from the National Fraternal Congress of the Chairman, Ira W. Porter, M. D. Twenty-third Annual Meeting.

Studies Upon Leprosy, by Walter R. Brinckerhoff, S. B., M. D., and W. L. Moore, M. D. (Washington Government Printing Office, 1909.)

The Influence of Certain Drugs Upon the Toxicity of Acetanilid and Antipyrine, by Worth Hale. (Washington Government Printing Office, 1909.)

The Fixing Power of Alkaloids and Volatile Acids and Its Application to the Estimation of Alkaloids with the Aid of Phenolphthalein or by the Volhard Method, by Elias Elvove. (Washington Government Printing Office, 1909.)

Chemical Tests for Blood, J. H. Kastle. (Washington Government Printing Office, 1909.)

Pharmacological Studies: Adrenalin and Adrenalin-Like Bodies, by W. H. Schultz. (Washington Government Printing Office, 1909.)

Thirty-Second Annual Report of the Board of Health of the State of New Jersey, 1908, and Report of the Bureau of Vital Statistics. (The News Printing Company, Patterson, N. J., 1909.)

Proceedings of the Fourth Annual Conference of the Health Officers of Louisiana, Under the Auspices of the State Board of Health. (Brandao Printing Company, New Orleans.)

The Revised Food and Drug Regulations of the Louisiana State Board of Health and Food Standards. (Brandao Printing Company, New Orleans.)

The Sanitary Code of the State of Louisiana, and Abstracts From the Laws of Louisiana Relating to Health and Sanitation, as Revised January, 1909.

Official List of Registered Practitioners of Medicine and Surgery of the State of Louisiana, From the Official Reports of the Louisiana State Board of Health. (Brandao Printing Company, New Orleans.)

Reprints.

The Clinical Diagnosis of Tuberculosis of the Tonsils, by Lee M. Hurd, M. D., *With Some Remarks Upon the Microscopic Diagnosis*, by Jonathan Wright, M. D.

The Government Control of Tuberculous Patients in Pennsylvania, by Samuel G. Dixon, M. D.

A Case of Laryngeal Diphtheria Necessitating Intubation, Complicating Cerebrospinal Meningitis in an Adult; A Case of Laryngeal Stenosis in the Adult, Successfully Treated by Intubation; Continuous Wearing of Tube for Four Years; A Sarcoma of the Naso-Pharynx, by Wm. K. Simpson, M. D.

A Report of a Case of Urethral Transplantation; Blood Transfusion; Treatment of Typhoid Fever Perforation, by J. D. S. Davis, M. D., LL. D.

A Catalytic Theory of Infection and Immunity; Personal Observations in Latent Malaria, by J. W. McLaughlin, M. D.

Some Comments of the Etiology and Treatment of Intestinal Hemorrhage; Some Thoughts Concerning Sleep and Digestion, by Geo. M. Miles, M. D.

Court Testimony of Alienists, by Britton D. Evans, M. D.

Rubber Cushions for General Surgical, Gynecological and Obstetrical Use, by Howard A. Kelly, M. D.

Dr. Adam Hammer, Surgeon and Apostle of Higher Medical Education, by James Moore Ball, M. D.

Multiple Stricture of the Small Intestine, With Report of a Case, by Wm. Van Valzah Hayes, M. D., and Wm. Seaman Bainbridge, M. D.

A Study of the Anatomic Relations of the Optic Nerve for the Accessory Cavities of the Nose, by Hanan W. Loeb, A. M., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR SEPTEMBER, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	7	1	8
Intermittent Fever (Malarial Cachexia)	4	2	6
Smallpox.....			
Measles			
Scarlet Fever.....	2		2
Whooping Cough.....	2	1	3
Diphtheria and Croup.....	4		4
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia		1	1
Tuberculosis.....	22	31	53
Cancer.....	18	5	23
Rheumatism and Gout	2		2
Diabetes	2	2	4
Alcoholism	1		1
Encephalitis and Meningitis.....	4	2	6
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	13	6	19
Paralysis	1		1
Convulsions of Infants	2	3	5
Other Diseases of Infancy	17		17
Tetanus.....	4	3	7
Other Nervous Diseases		1	1
Heart Diseases.....	37	34	71
Bronchitis	2	3	5
Pneumonia and Broncho-Pneumonia.....	11	14	25
Other Respiratory Diseases.....	1	1	2
Ulcer of Stomach.....			
Other Diseases of the Stomach	3	1	4
Diarrhea, Dysentery and Enteritis.....	30	11	41
Hernia, Intestinal Obstruction.....	4	2	6
Cirrhosis of Liver.....	14	2	16
Other Diseases of the Liver	1	1	2
Simple Peritonitis			
Appendicitis.....	2		2
Bright's Disease	30	24	54
Other Genito-Urinary Diseases.....	4		4
Puerperal Diseases	4	5	9
Senile Debility.....	11	6	17
Suicide	2		2
Injuries.....	22	13	35
All Other Causes.....	21	13	34
TOTAL.....	305	188	490

Still-born Children—White, 23; colored, 26; total, 49.

Population of City (estimated)—White, 265,000; colored, 97,000; total, 362,000.

Death Rate per 1000 per annum for Month—White, 13.80; colored, 23.25; total, 16.32.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.98
Mean temperature 79.00
Total precipitation 7.68 inches.
Prevailing direction of wind, north.

New Orleans Medical and Surgical Journal.

VOL. LXII.

DECEMBER, 1909.

No. 6

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Ophthalmic Surgery.

By HENRY DICKSON BRUNS, M. D.,

Surgeon in Charge of the Eye Department of the Eye, Ear, Nose and Throat Hospital,
New Orleans La.

(Concluded from November Number.)

Enucleation of the Eyeball and its substitutes. (p. 103.) Although the general directions in this chapter and the careful mention of many small precautions and details are admirable, the particular method of enucleation described seems to us well adapted neither to the needs of the beginner and general practitioner or the experienced operator. When demonstrating the operation to students, we prefer the method (p. 108) in which, after dissection of the conjunctiva, the ocular tendons are picked up one after the other on the strabismus hook and divided against its beak. To leave "the fourth straight eye muscle" to be divided after the optic nerve has been cut, seems to us extremely awkward. Such a procedure delays at the last moment lifting the globe from the

socket and the use of the tampon, while blood is pouring from the cut blood vessels. It deprives the inexperienced, too, of his best means of knowing that the eyeball is freed from all attachments and ready to come away as soon as the optic nerve is cut; the fact that it rotates with perfect freedom on its antero-posterior axis. No less awkward is the plan of rotating the eyeball always to the right in order to divide the optic nerve. It is much better that the operator change his position so as to divide the nerve from the temporal side always, where the orbit wall is shallowest and the nose not in the way. In practice we use the method of enucleation in which the conjunctiva is rapidly cut around and dissected, while the scissors blade is slipped under the tendons as they are met with in making the circuit of the globe. This completed, division of the nerve finishes the operation. Only two instruments, the forceps and Noyes' rather slim enucleation scissors, are needed. We have not found from experience that every millimeter of conjunctiva is of the greatest importance. It is our habit to leave a "frill" of conjunctiva about 1-8 inch around the cornea, and those upon whom enucleation is done in this way wear the artificial eye as well as anyone. Of course, in cases in which the membrane has been partially destroyed we should be careful to save every particle.

For some years past* all enucleations in our clinic have been done under local anæsthesia, except in cases of young children or very excitable, timorous persons.

Instead of injecting several times during the progress of the operation, Dr. Robin, our chief of clinic, injects one-quarter of the 10, 10, 20 minims, 1 to 1,000 adrenalin, 4 per cent cocaine, and normal salt solution (cocaine 2-5 gr.) along each rectus muscle, the conjunctiva having been previously anæsthetized by a drop or two of 4 per cent. cocaine solution. After the lapse of eight minutes the operation is begun. Experience has shown us, as we have said before, that this time allowance is of great importance in obtaining a profound effect. If pain is evinced during the operation 4 or 5 minims of the mixture is allowed to fall into the wound, and shortly before the optic nerve is cut 10 minims more are injected into its neighborhood. Thus only one-half grain of cocaine—well guarded with *adrenalin*—is used during the whole operation.

* Preliminary note on Enucleation of the Eyeball Under Local Anæsthesia with Cocaine and Adrenalin. By H. D. Bruns and E. A. Robin. Transactions of the Amer. Ophth. Soc., Vol. XI, 1906.

Dr. Meller, strange to say, avails himself of the helpful properties of adrenalin only in the last injection about the optic nerve. As Dr. Meller says, no curved needle or special apparatus is necessary; the ordinary hypodermatic syringe answers perfectly. The pain inflicted is slight, though as consciousness is not abolished complaints of sufferings are often loud, especially among the people we have to deal with in our clinic (Sicilians and negroes).^{*} In estimating the thoroughness of the anæsthesia, therefore, one must be guided by the after confessions of many, that while they were badly scared they were but little hurt; that many young women of a higher type have endured the operation without a murmur, and that all of those upon whom we can rely have declared the pain to be inconsiderable. Thus a distinguished confrere, who chose local rather than general anæsthesia, informed us that the suffering was not worth speaking of. We have found that nearly all to whom the dangers of general anæsthesia *versus* the inconveniences of the local method are stated, without effort to persuade, will choose the latter. We agree with Dr. Meller that "it is not at all necessary to close the conjunctiva with sutures;" on the contrary, we think the empty orbit should be treated in every way as an open wound. In twenty-four hours the dressings are removed. The patient is taught how to hold the lids apart with one hand and to splash freely into the orbit, from a basin, a solution of a teaspoonful of borax to the pint of boiled water with the other. This is done for five minutes every hour. By suturing the conjunctiva and maintaining the dressings we run some risk by shutting in and damming back the secretions, while by encouraging their outflow and keeping the orbit clean by free lavage with a mild detergent-astringent solution we secure rapid and uneventful healing. Non-resident patients are able to return to their homes in a week. Prothesis is not permitted under six weeks.

Evisceration we very seldom practice; the severe reaction, after-suffering and delayed recovery led us to abandon it long ago. The sewing up of glass or metal balls within the sclera, we, like Dr. Meller (p. 101), never practise. It has seemed to us opposed to correct surgical principles, and after-coming reports of the ultimate expulsion of these foreign bodies, and, far worse, of sympathetic

^{*} It is, therefore, better to cover the sound eye.

inflammation following such operations, make us rejoice that we resisted the temptation.

Optico-ciliary neurotomy is an operation we have had no occasion to practise and we have seldom seen in the clinic such wounds of the sclera as led us to prefer suturing to enucleation. As to the reasons for enucleation, Dr. Meller clearly and tersely lays down the "main indications"—persistent pain in a hopelessly blind eye, impending sympathetic inflammation, and the presence of an intraocular malignant tumor. The word malignant should be omitted in this catalogue, as Dr. Meller omits it in the immediate context; for the difficulty of distinguishing between malignant and benign is usually insuperable and all intraocular tumors produce in the end intolerable conditions. To these indications should be added the presence within the eyeball of a foreign body, irremovable save at the cost of unlimited traumatism. In some of the cases reported in which removal was accomplished only after surgical disorganization of the globe, immediate enucleation would have been far better. Consideration of reported cases and observation of others in which a foreign body (e. g., copper gun cap) was retained within the ball for more than 30 years (since our Civil War) without the production of an alarming symptom, only to be followed by a final outbreak of sympathetic inflammation, prove that this danger is never past and incline to the belief that sympathetic trouble will always follow the retention of an intraocular foreign body if the patient only live long enough.

It has always seemed to us, that in considering whether an eye should be enucleated or not, sufficient stress is not laid in our texts upon the personality and social status of the patient. With persons of intelligence, to whom the nature of the danger and the prodromic symptoms of sympathetic inflammation can be explained with assurance of their profiting thereby, we can risk the retention of a doubtful eyeball, even though they live at some distance, provided that their means permit of their laying down whatever they may be engaged in and hastening to the surgeon upon the first signal of danger. On the other hand, with hospital patients, usually of low or limited education and intelligence, unable to apprehend their danger or its prodromes; without the habit of seeking immediate aid in the beginning of disease; likely in following their vocations to be led far away from places in which proper assist-

ance can be had, and lacking the money to give up at once their employment and incur the expense of a journey in quest of treatment, we are not justified in taking any chance. In cases of doubt they should be urged and persuaded to submit to enucleation as the surest means of saving them from blindness.

No criticism is to be made of the excellent, precise description of exenteration of the orbit. It is an operation which, fortunately, we have been seldom forced to employ. It may be of interest to recount that once, before the days of antiseptis in our Charity Hospital, having performed exenteration, we made use of a small, conical, velvet sponge, carefully cleansed, to plug the orbit; the dressings being applied over it. On taking off the dressings the sponge was found to be no longer removable; coagulation and the growth of granulations having already firmly fastened it in place. The subsequent healing seemed to be hastened and secretion lessened by the sponge acting as a scaffold to sustain the luxuriant granulations.

Plastic operations with Pedicled Flaps on the Eyelids. (p. 115.)

Our experience with this class of operations has not been large and varied enough to make a criticism of this chapter at our hands of any value. This is especially the case since the X-ray has taken the place of all other measures in the treatment of epitheliomata of the lids. The description of the restoration of the lower lid by "the combination of Deffenbach's method with the plastic operation, making use of the ear cartilage (as a substitute for the tarsus), as first recommended by Buediner," not only "represents an extraordinary advance," but is fascinating and must fill every ophthalmic surgeon with a desire to attempt it. The section on the release and repair of symblepharon is much feebler, as, indeed, all chapters on this opprobrious condition unfortunately must still remain. Neither Arlt's operation, so useful with small symblepharon, nor the ingenious suggestion of Noyes (*Diseases of the Eye*, 1890, p. 267) are mentioned. In cases of extensive symblepharon, we should prefer to Rogman's method to make use of mucous membrane grafts folded on themselves, the epithelial surfaces together, perforated at the bottom of the fold by double needled sutures which are carried through the fornix out upon skin and tied over beads, as used by Dr. Weeks in his operation for restoration of the cul-de-sac after enucleation.

Extraction of Senile Cataract (p. 124).

Unless some safe method of delivering the whole lens in its capsule shall be devised, doing away with the unhappy effects of retained cortex and the necessity for secondary discission, the technique of cataract extraction seems to have reached a pitch of perfection which leaves little to be improved upon. After trying for ourselves every suggestion which seemed at all promising, experience has gradually led us to use almost the very method practised by Prof. Fuchs and Dr. Meller. We do not, however, always sit on the right side of our patient. Using a table tall enough for comfort, we stand behind when operating on the right, and to the patient's right when operating on the left eye. After having reached a certain degree of ambidexterity, we concluded that the attainment of exactly the same skill with each hand is unphysiological and unreal, and as the use of the knife requires the utmost dexterity we always use it with the right hand. In operating on the left eye, therefore, we use, though standing, the same position as Dr. Meller, in which the right arm is supported on the patient's chest. By standing behind to operate upon the right eye the operator's right hand is well supported upon the patient's head, and we avoid the awkward reach across our own body with the left hand, holding the knife, inseparable from Dr. Meller's position at the patient's right side. It seems to us incontrovertible that, for a right-handed surgeon, these positions, behind for the right eye, to the right for the left eye, afford the best support and poise to the operator. We believe that the majority of experienced operators now use the modified flap operation, with the section in the limbus and a short conjunctival flap. The whole description of the technique, step by step, is admirably clear and exact. We believe, however, that refraction by the cornea and aqueous is the cause of the beginner's failure to make the counter-puncture with precision. The portion of the knife in the anterior chamber seems nearer, and the novice, fearing that it will emerge in the cornea, directs it too far backwards. Like our author, we have practically abandoned the speculum, but we consider it safer to have our assistant hold the upper lid with a retractor. In describing the iridectomy, Dr. Meller forgets to point out that an additional reason why the scissors should be held *perpendicular* to the wound is that if held parallel it is most difficult to avoid shearing away our conjunctival flap. We still prefer to use Daviel's spoons in delivering the nucleus.

The patient looks down and the eye is not fixed. The pressure of the spoon on the scleral edge of the wound causes it to gape and allow free passage, not only to the nucleus, but to as much of the cortical as will adhere; as little as possible is scraped off as the nucleus passes through the wound. The spoon upon the cornea follows up the escaping nucleus to the last, and the service of an assistant to roll it out completely is not required at a critical moment. In this way, too, by nicely regulated pressure we drive out of the anterior chamber the larger portion of the cortex; little remains to be evacuated by subsequent manipulations and we are less often forced to pass the spoon into the anterior chamber; a manœuvre dangerous in itself, bruising to the tissues and increasing the risk of infection. For many years, for like reasons, we have abandoned the use of the cystotome. We keep out of the eye another instrument and one specially hard to cleanse and keep sharp (Edward Jackson). If it drags instead of cutting, if it catches anywhere, it involves us in danger, and it is difficult to turn and draw it swiftly out if the patient suddenly rolls the eye upwards. In place of using the cystotome, in making the puncture the knife is directed down and inwards across the fully dilated pupil; the point is at once engaged in the anterior capsule and swept swiftly upwards, laying the capsule freely open, to the point of counter puncture which is immediately completed.* Rarely does enough aqueous escape to permit of the iris falling over the knife. As we almost always practise iridectomy, this, should it occur, is but a trifling accident and should not delay us an instant. Occasionally the cortex will begin to exude before the iridectomy can be made; this is harmless; it should be carefully removed with the spoon and the iridectomy performed as usual.

Since the publication of Dr. Meller's book, we have thought it proper to begin another series of experiments upon the use of the capsule forceps, but they are as yet too few to be of value. Presumably the chief value of the instrument will lie in decreasing the necessity of discission of the "after-cataract." It is regrettable that neither Dr. Meller, nor Prof. Fuchs in his textbook, gives the percentage of such discissions in their practice. Too few of our hospital patients who have been operated upon for cataract

* It must not be supposed that we think this original. We only present what we believe to be the advantages of the method.

can be followed up to make the figures of real value; but our impression from private practice is, that should the patient live long enough, the capsular remains will become opaque or wrinkled and sooner or later discission will have to be done to secure the best results in all cases in which the lens has not been removed in its capsule. We entirely agree that a narrow and not too peripheral iridectomy is not only all-sufficient, but preferable, and we, too, prefer the *pince-ciseaux* to the ordinary iris scissors.

No one will find fault with the description of the "Toilet of the Eye" (p. 137). The method of dressing after extraction is dismissed in too few words. In our clinic the great majority of eyes lost, including all causes, are destroyed by accidents during the period of healing. These patients are difficult to control, especially the Sicilians and negroes. Both are ignorant, superstitious and dirty; the Sicilian is obstinate and suspicious. He disobeys because he does not trust you and believes he knows and loves best his own interest. The negro is confiding and docile, but from these very qualities he is as likely to heed the advice of friends and elders of his own race as the surgeon, and he has unexpected therapeutic convictions. The Sicilian pulls off his bandage and fingers his eye because he does not believe you are acting wholly for his good, but partly from some hidden experimental reason. The negro appears with his dressings disarranged and his eye irritated by some strange decoction because an old "mammy" has readily convinced him that it would promote healing. He has a childish curiosity, too, to see how his eye is getting along. Recently one was found with his bandage awry and hyphæma and partial prolapse. He had awakened in the night and found himself unable to open his eye; possessed by some inexplicable belief that this was necessary to his welfare, he had run his fingers under the dressing and pulled his eye open! We are satisfied that could the patient after extraction lie with the eyes gently closed, without dressings of any kind, and be so kept, watched night and day by attentive nurses to assure perfect tranquility, the conditions for healing would be excellent. But such conditions are, with us at least, unattainable. These patients, too, are restive, unused to self-control and a passive attitude; if put to bed in a hospital ward under the usual conditions of surveillance, they are likely to toss about,

get up and fall over or strike against furniture and do damage to the wounded eye. Hence we are not only obliged to use dressings, but have been driven to employ all which best protect the eye from the patient's own hand and rude contact with external objects. Therefore, when extraction (or other serious operation on the eyeball) is finished the eye is irrigated with normal salt solution, atropin and 15 per cent. argyrol are instilled and a narrow strip of aseptic adhesive plaster is drawn from the forehead to the cheek across the middle of the eyelids to keep them closed. A disc of gauze dampened with the salt solution is laid on and a large mass of absorbent cotton carefully padded upon it, so that an even pressure, just sufficient to prevent opening of the lids, is exerted. Over this a two-inch roller of the best and most elastic flannel is applied and over this again another of the cheapest mosquito netting, well moistened. This inferior mosquito netting contains much sizing and when applied wet hardens upon drying into a stiff but very light cast. This, so far, is the most protective dressing that experience has enabled us to devise,* but even this fails at times to exclude the fingers of some particularly intractable negro or "dago."

In the Transactions of the last International Ophthalmological Congress at Naples, Dr. Blanco, of Valencia, describes (p. 229) a dressing composed of squares of gauze containing between them absorbent cotton, fastened down with collodion. We have very lately begun a trial of this method, adding over the gauze and cotton pad a wire cataract cage, held in place by the mosquito-bar bandage. So far it has given excellent results and seems to promise to keep out meddling fingers and protect from chance blows better than anything we have yet tried, being at the same time cool and not easily disarranged.

We never bandage both eyes unless both are entirely blind or some serious accident makes their immobilization highly desirable. The *morale* of these old people suffers under unwonted circumstances. Formerly when both eyes were bandaged and they were laid away in bed in the hospital ward for a week, they were liable to post-operative dementia, and we lost several who escaped and killed themselves by leaping from windows or over balconies or

* The "mosquito bar bandage" we inherited from our predecessor in the Charity Hospital of New Orleans, Dr. Edw. Harrison, more than twenty-five years ago. It is sometimes used alone, where a light, cool bandage, which holds its position well, is desirable.

staircases. The knowledge that the old bear change badly is immemorial, and our cataract patients suffer less in both bodily and mental health the less their habits and surroundings are altered. Therefore, we have, like most operators, been confining these patients less and less. During the past year 27 cases were neither confined to bed nor even to the hospital. On getting down from the operating table, each was given a half-ounce of paregoric to be taken in broken doses should pain or discomfort destroy sleep and allowed to go to his home.* They reported daily, thereafter. Two of these lost their eyes; one from irido-cyclitis, following a dissection, and one from getting the eyelid into the wound. The others seemed to do better than any equal number of extraction cases we have had, and we are continuing the experiment. Cases in which vitreous was lost were not treated as ambulant, but no other complication or accident was excluded. Indeed, one of this series produced by a sudden movement at the moment of the iridectomy complete evulsion of the iris with expulsion of the lens, without loss of vitreous, yet recovered rapidly with good vision.

All of our cases are prepared for operation by cutting the eyelashes and brows, cleansing the skin with green soap tincture, irrigating with the borax solution, instilling 15 per cent argyrol and applying a test dressing.† This is removed on the day of operation, atropin is instilled, the cleansing repeated and a new dressing applied, which is only removed on the operating table. Every effort is made to cleanse with the least possible irritation. This—and the use of the test bandage—constitutes one of the few real improvements in technique.

Dr. Meller goes over the accidents and complications (p. 140) very completely and satisfactorily. Infections have occurred in our experience only when some instrument has been imperfectly sterilized, when in spite of all we could do we have been obliged at last to operate with the conjunctiva not in the best condition or when the patient has succeeded in disarranging the dressings and in getting his eye open. We have never had reason to believe that the position of the operator behind the patient was responsible for an infection (p. 144). We have rarely been able to produce perfect anæsthesia of the iris (p. 144) even by repeated instillations

* See Annual Report of the Eye, Ear, Nose and Throat Hospital, 1908; Table Diseases and Injuries of the Lens.

† Moistened with 1 to 5,000 bichloride solution.

of 4 per cent cocaine and 1 to 1,000 adrenalin solution. It has been our experience that mishaps during the operation usually befall at the moment that the first pain is inflicted in performing the iridectomy. Having observed the very complete anæsthesia produced by injection of the cocaine-adrenalin-salt solution in tenotomy and enucleation, it occurred to us to try the method in the case of two old patients with glaucoma upon whom we had to operate, to whom we feared to give a general anæsthetic and whose self-control we greatly distrusted. Iridectomy was performed without the least manifestation of pain, and since then we have adopted it as a routine practice in extraction and in all operations in which the iris is cut. After the usual instillations of cocaine and adrenalin, about 5 minims of the solution are thrown under the conjunctiva at a point opposite to that at which the apex of the flap is to be situated; in other words, at the point of fixation. After eight minutes the iris has become very thoroughly anæsthetic. The slight swelling, even if not dispersed by massage, offers no disadvantage. If the iris should be punctured or fall over the knife, the gravest consequence of the accident, sudden wincing or movement, does not occur, and for the same reason we are not apt to produce an iridodiolysis with its consequent embarrassing hemorrhage into the anterior chamber. Indeed this small sub-conjunctival injection seems to us a distinct advantage.

In most cases a "bridge" left after iridectomy is of no consequence, but when much cortical remains in the anterior chamber, or when a high degree of iritis comes on, it may prove disadvantageous. In many visual iridectomies, a portion of the sphincter is purposely left with the best result.

With Dr. Meller's directions concerning the precautions to be observed in case of loss of vitreous, we fully agree. Not only should the patient be kept in bed with both eyes bandaged for at least forty-eight hours, but quietude should be maintained by the use of opiates and only liquid diet should be given. Indeed, on the first and often on the second night after every extraction it is our custom to give paregoric in teaspoonful doses until sleep is procured, and in no case is the dressing removed before forty-eight hours have passed, unless there is complaint of decided discomfort or pain. At the first dressing we should be careful to disturb the wounded eye no more than the minimum required for an adequate

inspection, the least amount of cleansing absolutely necessary, and the instillation of atropin.

After prolapse of the vitreous or a dislocation we extract with the loop invariably—Taylor's vectis is the form preferred. We have no experience with Reisinger's double tenaculum, and as we are told that it is likely to fail us if the nucleus be soft (p. 150), we see no reason for not resorting to the loop first and always. Collapse of the cornea, umbilication, is, as Dr. Meller says, of no consequence, but is an interesting indication of the aid given by cocaine in reducing tension, for this phenomenon was much less frequently seen before the introduction of the drug.

As to the advisability of preliminary iridectomy, we are as far apart from our author as the poles. He dismisses the subject with: "We do not perform preliminary iridectomy either in unripe or complicated cataract, it having no special advantage; on the contrary, it adds to the danger of a second operation." Fuchs (Amer. ed., 1908, p. 840) says: "Like many others, I have pretty much given up preparatory iridectomy as superfluous, except in those cases in which there are complicated cataracts. * * * Maturation by Forster's method I also consider as an operation we can dispense with." With all of which we entirely agree, but this is far, far from saying that it "adds to the danger of a second operation." How this can be we are at a loss to imagine. Is it possible that the translator has inadvertently rendered "Adds the danger of a second operation" into "Adds to the danger of a second operation?" Like Fuchs, we always resort to preliminary iridectomy in complicated cases (decided immaturity, multiple post. synechiæ, increase of tension, etc.) and the fact of having but one eye we regard as a most serious complication, from the patient's standpoint, at any rate. Preliminary iridectomy seems to us to offer these advantages:* 1. It gives us valuable insight into the patient's *morale*—his moral and physical courage, self-control, docility, etc. 2. It affords the patient practice in self-control and in submission to the trials of the extraction and the after-treatment; especially as, if we do not use sub-conjunctival injections of cocaine-adrenalin, we are able to assure him that the only painful part of the operation is past. If by reason of the injection the iridectomy is painless, the patient no

* See Howard F. Hansell, M. D.: Some Minor Points in the Surgery of Cataract; Transactions of the Section on Ophthalmology of the American Medical Association, 1909, published since this was written.

longer regards the coming extraction as the dread ordeal to which he has been screwing up his courage. 3. As the extraction is painless, the patient is less likely to wince, squeeze or strain. 4. The extraction is bloodless. 5. The extraction is more quickly completed, especially if we do capsulotomy with the point of the knife. As a rule the iris is easily replaced, and we never have to wait for hemorrhage to cease or proceed slowly because it has obscured the field. Hence, brevity of duration being of prime importance and the iridectomy being the "messy," time-consuming part of the operation, we always advise preliminary iridectomy when the patient has but one eye. That for the second time we run the risk of infection is not to be denied, but its occurrence is extremely rare. Indeed, the main disadvantage we have observed is that our patient sometimes fails to return to us for the extraction, for there are, unfortunately, men in the profession who are willing to reap the advantage of our preparatory operation. We entirely agree with all Dr. Meller writes of extraction without iridectomy, and in hospital practice we no longer employ the method. Long ago, our own experience taught us that the use of eserine after simple extraction is not only not "of any great value" (p. 157), but actually increases the danger of prolapse. It was from Fuchs himself (Textbook, p. 809) that we received the lucid explanation that the tension at the wound being zero, the aqueous accumulating in the posterior chamber tends to push the iris to that point of least resistance, rather than to flow by the longer route through the pupil; hence the more contracted the pupil, the more extended the iris, the greater the danger of prolapse. Hence, after all operations involving the iris, atropin, not eserine, lessens the liability to prolapse by furling the iris into as small a compass as possible; in this way, too, the tendency to iritis, with its evil effects, is lessened. It goes without saying that operations for the reduction of tension form the exception to this rule.

Before leaving this subject, we should note the advantages we have recently derived from the use of dionin in the after treatment of extraction. In all cases in which we find debris in the pupil, in which it dilates slowly, in which iritis threatens and exudates are poured out from the iris, we now use dionin in powder as early as forty-eight hours after the operation, if the wound is sealed. It

promptly clears up surgical keratitis and promotes in a remarkable way the absorption of cortical remains and exudates, and favors full dilatation of the pupil by atropin. We have seen of late several cases that would formerly have surely passed into a condition requiring iridotomy or a difficult and dangerous discission, clear up perfectly under the use of this drug. It exerts no effect upon capsular remains, except to clear them of cortical debris and, as we all know now, it must be used at lengthening intervals or it soon ceases to produce the characteristic reaction, without which it does not seem to act beneficially. This use of dionin and the production of absolute anaesthesia by the conjunctival injection of the cocaine-adrenalin-salt solution constitute sure if small advances in our ability to deal successfully with senile cataract.

Discission (p. 158.)

The description of the technique, indications and complications are given with the author's usual clearness, but we believe that what he says of discission for the removal of opaque lenses in children should be made to apply to all cases in which we use this operation.* In every instance the patient should be made to understand clearly, from the first, that the element of time must be totally subordinated to that of safety. As Dr. Meller says, there is "ample time to wait." The first discission should be small and linear and we should wait until absorption has ceased and reaction passed before making another and a freer opening in the capsule; repeating this as often as may be necessary. In this way we are afforded the chance to see how the eye tolerates the operation, how the lens breaks up, how absorption progresses; for in all of these things there are marked individual differences. Unless rising tension with pain, or decided iritis with contraction of the pupil compel interference, we refrain from linear extraction. This operation by opening the anterior chamber increases the risk of infection, and, as Dr. Meller points out, often entails loss of vitreous or drives us to do iridectomy for irreducible prolapse. In this case the patient is left with a large coloboma, causing distressing dazzling; unless it be placed directly upward, the least eligible position for

* We cannot subscribe to any method which contemplates a primary free incision of the capsule, premeditatively relying upon therapeusis or a linear extraction to remedy the increase of tension and inflammatory reaction almost certain to follow. This seems to us to convert a simple and, as it were, subcutaneous operation into an open and much more dangerous one and to sacrifice deliberately the greater safety of the patient to the desire to gain time.

linear extraction. Nevertheless, if in spite of carefully graduated dissections, unfortunate complications should follow, we cannot hope with Dr. Meller to combat them successfully with iced compresses, cocaine, dry atropin or eserin (pp. 162, 163). In our experience therapeusis is in vain, and we should resort without loss of time to linear extraction. Even in children, with whom linear extraction presents peculiar difficulties (p. 163), we should shrink from the use of eserin and the consequent miosis. These reasons apply with greater force in dissection of the clear lens in cases of high myopia,* in which we operate upon eyes only to be regarded as eminently abnormal if not actually diseased. With the four indications for the operation in high-grade myopia laid down by Dr. Meller we agree, but in children with, apparently, progressive myopia of even less than 16 D., (12 D.), we have operated with the result of checking a pathological process beyond the reach of any other means, and promising to produce by middle life a condition little better than blindness. The mere inconvenience of having to use two pairs of glasses is as nothing in comparison.

Finally no mention is made of the great service rendered by dionin (powder) in promoting rapid absorption of the lens masses and diminishing the necessity for linear extraction. This is well shown by the two cases from our clinic cited by Dr. Robin in his paper on the effects of this drug.†

Optical iridectomy (p. 164).

Our author does not seem to us to have described fully enough the several modifications to be made by skilful hands in the size, and shape, and position of the coloboma. For instance, in contrast to the plan of cutting away the sphincter portion of the iris only, we have frequently found it advantageous to "buttonhole" the iris midway between the pupil-edge and the periphery. We have placed such pupils symmetrically in both eyes, with the long axes parallel to the radial fibers. They possessed a slight degree of variability, becoming larger as the natural pupil dilated and smaller as it contracted.‡ Stress is not laid on the fact that visual

* Removal of the Lens in High Myopia, by H. Dickson Bruns, M. D. Transactions of the Tenth International Congress of Ophthalmology. Reprinted, with cases, in the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, October, 1904.

† Uses of Dionin in Diseases of the Eye. NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, October, 1908.

‡ Case of double, symmetrical, buttonhole, visual iridectomy. International Clinics, Vol. IV, 1899.

iridectomies can seldom be made too small and that a small incision will facilitate a small iridectomy. In saying, "the objection made against iridectomy" (in lamellar cataract) "that the cataract will probably become progressive and lead to total opacity of the lens, thus rendering the operation valueless, is, however, not sustained," Dr. Meller differs somewhat from his distinguished chief. Fuchs (loc. cit., pp. 141, 142) says: "Peri-nuclear cataract is stationary as a rule, though there are cases in which it gradually develops into a total opacity of the lens." In laying down the indications which are to guide us in the choice of operation (iridectomy or discission) he declares: "If signs of the progress of the cataract are present (demonstrable gradual diminution in visual power), the removal of the lens is unconditionally indicated."

We have seen cases in which we had every reason to believe that this general loss of transparency had followed properly performed iridectomies. As this danger is always present, and as the condition of the patient is worse if visual iridectomy has been already performed, we prefer discission in these cases.

Discission in Secondary Cataract (p. 169).

Neither here nor in the chapter on discission of the anterior capsule, does Dr. Meller mention the great danger on which stress should be laid in describing this operation to the inexperienced—the danger of infection. Always the beginner should be urged to pay particular attention to asepsis (in an operation which he is likely to regard too lightly) and so to do all in his power to avoid a calamity, from which even the most experienced operators are not wholly exempt. It is true that aseptic surgery has greatly diminished this danger, that infection is less likely to occur in discissions for the absorption of the lens than in those done to secure an opening in an after-cataract*; but it is also true that infection occasionally happens in an inexplicable way to the oldest hands and after the most painstaking precautions. We always have the cornea freely irrigated with the normal salt solution immediately before puncture and upon the withdrawal of the needle. Nor does Dr. Meller sufficiently emphasize the danger of dragging upon the ciliary body during the manipulations with the needle. Whether there be posterior synechiæ or not, this is always present; as the

*Probably because we are here operating upon eyes which have already been subjected to surgical traumatism and its consequent inflammation.

suspensory ligament is welded to the capsule and attached to the ciliary body, irido-cyclitis—so fatal a complication after extraction—is certain to follow such dragging: yet the operator of small experience is almost sure to inflict it in dealing with tough occluding membranes, if he fails to grasp the danger and learn consequent self-control enough to abandon temporarily the operation when he sees dragging to be inevitable. In the discussion of after-cataracts we should put aside prejudice in favor of any particular method and be guided solely by our conception of the resistance which the membrane will offer. This is to be arrived at by thorough examination with oblique light and the binocular loupe; but an attempt to discise with the single needle, made with great caution, may be necessary to an adequate appreciation of the difficulties in any case. The best general rule is to make the cut at right angles to the line of greatest tension of the membrane, determined by the direction of its wrinkles, folds, furrows, puckerings or pleats observed during the examination. These estimates being made, we should chose that method—with the single needle, two needles, the Græfe knife, the single, triangular (pie-slice) or conical incision—which we conclude to be best adapted to the case in hand. In treating of discission the warning to the young operator should never be omitted, that the incision with the single needle, unless it be made across the line of tension and unless immediate and ample retraction of the membrane is clearly seen to occur, may prove disappointing and deceptive. His apprehension of the fact that at the moment of incision the vitreous pushing forward may distend the cut, only to be pushed back later by reaccumulating aqueous, leaving a mere linear opening in the membrane, may save much mortification.

The method described by Dr. Meller under capsulotomy and iridotomy with the Græfe knife was used by Loring; we have employed it for many years and can testify that in suitable cases excellent results may be obtained.* Its disadvantages, as pointed out by Dr. Meller, is that the cut often remains linear, and the inevitable hemorrhage. In all these operations, whenever possible, the

*We do iridotomy less often now, because in many cases in which the iris has become entangled and the pupil is being drawn up and will in time be obliterated, it is our custom, as soon as the passing of reaction permits, to do a small iridectomy or iridectomies: this is placed so as to cut away the entanglement as close to the old scar as possible and drop the pupil down to proper position. Done with a small keratome there is hardly ever any loss of vitreous or other complication.

incisions should be confined to the occluding membrane, for, if the iris be wounded, the blood clot forms a bridge across which the exudate is thrown and the gap in the iris is soon knit up again. Where the iris must be cut, the V-shaped (pie-slice) incision with the knife needle described by Dr. S. Lewis Ziegler of Philadelphia (Trans of Sect. on Ophth., A. M. A., 1908), owing to the retraction which the "slice" undergoes, will often be our first choice. In spite of having to open the anterior chamber and incur a greater or less loss of vitreous, there are cases, especially certain tough, wet-leather-like membranes that give back before the sharpest points and edges, in which only the method of De Wecker with his *pince ciseaux* will give a satisfactory result. We repeat, only close observation and experience enable us to surmise the nature of the case and the method that will prove most suitable. In many instances it will hardly be possible to adhere to any predetermined plan, and he will succeed best whose imagination suggests modifications of detail as the operation progresses. No surgeon must lack the courage to desist should he find himself dragging on the ciliary body, and to defer to another occasion a final operation by the method to which his first experience points the way. An operation which determines the final success of most cataract operations, and the chance of securing vision in many others, is too important to be passed over hastily and without an accurate consideration of each detail.

With discission by means of the needle introduced through the sclera behind the ciliary body we have no experience; nor are we tempted to it by Dr. Meller's assertion that "after discissions through the sclera, complications such as increase of intraocular pressure and cyclitis *frequently* occur." (Italics ours.)

Linear Extraction (p. 174).

We have already indicated the use we make of this operation. Of the many unpleasant complications which may mar our results, Dr. Meller gives a full account on pages 177 and 179. The thirty-fifth year is a high enough age limit to set to the removal of the lens by discission and linear extraction, but that the lens may be safely and completely absorbed at a decidedly greater age is abundantly proven by the cases of traumatic cataract which come under observation.

Glaucoma—Iridectomy (p. 180).

There is little to criticise in Dr. Meller's chapter on iridectomy for

glaucoma. We have when discussing cataract extraction commented on the position he prefers; sitting, on the right side of the patient for operation upon either eye. We can well understand how one should prefer this position and the pulling motion of the keratome, though our habit is to stand and, usually, to push the instrument. When using the Græfe knife we stand as in cataract extraction, behind when operating on the right eye and on the patient's right when busied with the left eye. We note that Dr. Meller says on page 184 when speaking of the use of the Græfe knife: "Only on the right eye, if the anterior chamber is very shallow, it may be preferable to operate from behind, as in this position the right hand can be steadied on the head of the patient better than the left when operating from the front." This seems to admit our whole contention; as no operator would throw away an iota of advantage in either of two such serious operations—extraction and iridectomy for glaucoma: for we feel sure that the number of eyes lost through infection from the operator's bending over them while operating from behind is an entirely negligible quantity. Like Dr. Meller, it is our habit to use the keratome unless the anterior chamber is so narrow that no knife but the Græfe can be wormed along its angle. The keratome seems to us safer; the release of tension can be made more gradually, its wound is more valvular and less likely to gape and allow the vitreous to prolapse; yet we do not feel sure that the Græfe knife in cutting out does not make a scleral wound more perfectly adapted to permanent relief of the condition. Since reading the articles of La-grange on his operation of *Sclerectomy* (*Recueil d'Ophthalmologie*) and since the introduction of cyclo-dialysis, we have sometimes been inclined to fancy that the division of the ligamentum pectinatum and a consequent change in the position of the anterior portion of the ciliary body and the root of the iris, together, perhaps, with the formation of an opening into the suprachoroidal space, may have to do with the reduction in tension produced by all the operations practised for the relief of glaucoma—iridectomy, anterior sclerotomy, sclerectomy, cyclo-dialysis. Observation has not allowed us to set much store by the "leaking cicatrix" theory; one of the tightest scars we ever saw followed a well performed sclerectomy. Nor have we ever been able to imagine how an incision

through the fontana spaces with its consequent cicatrix could be instrumental in "opening them up."

The fear that Dr. Meller expresses (p. 184) of the use of cocaine in operations for glaucoma, because it dilates the pupil, we do not share. Our experience with cocaine in extraction convinces us that its primary effect is to lessen intraocular tension. Unless the drug were applied so long before the operation that its anæsthetic effect was subsiding, our incision would have opened the anterior chamber long before its mydriatic action became manifest. Besides, cocaine is powerless to dilate the pupil when antagonized by the "energetic use of eserine."* It is in iridectomy for glaucoma that we obtain the most satisfactory anæsthesia from sub-conjunctival injections of cocaine, and it was precisely here that the imperfect effects of the instillation of solutions of the drug caused us to experiment with the sub-conjunctival injections, which we now use in all cutting operations on the iris. In referring to "cataract which occasionally follows the operation," Dr. Meller evidently means which *immediately* follows the operation; for it is certain that cataract follows, or is discovered, some time after the operation in a large number of cases; cases in which a most searching examination, and the time elapsed before the discovery of the cataract, both preclude the supposition that it could have been caused by the operation itself. It is entirely natural, too, that cataract and glaucoma should occur in the same eye, by reason of the patient's age and the conditions of nutrition.

Anterior Sclerotomy (p. 193).

Posterior Sclerotomy (p. 196).

Our experience with these operations agrees entirely with that of Dr. Mellor. In a few cases of absolute glaucoma in elderly people, in whom an iridectomy was out of the question and who were too feeble to endure enucleation, we have known posterior sclerotomy to give permanent relief from suffering.

Cyclodialysis (p. 199).

With cyclodialysis we have not yet had sufficient experience to make our opinion of any value. An excellent article by Dr. Arnold Knapp (Trans. of Sect. on Ophth., A. M. A., 1909) forms the latest American contribution to the subject.

* Alypin we have tried only to reject it. Weak solutions are less certain, rapid and profound in effect than cocaine, while the stronger are painful and irritating.

Operations for Secondary Glaucoma (p. 205).

We have not been obliged to resort to paracentesis of the cornea for rise of tension during an attack of iritis; the free use of atropin, vigorous inunction with Arlt's salve and leeches applied near the outer canthus have always brought relief. Since the introduction of dionin, the liberal use of the powdered drug has aided greatly in combating the symptoms of this disease. In the case of a myope, who had lost the other eye, we (Dr. E. A. Robin) have succeeded in removing with the vectis the almost totally luxated lens from the vitreous chamber, with the restoration of excellent vision. By the directions which Dr. Meller gives for the removal of the lens dislocated into the anterior chamber, we think the beginner may be misled when he says: "The anterior chamber is opened by an incision with Græfe's knife at the lower limbus." In these cases the lens often lies obliquely, and the incision may best be placed where its margin lies furthest from the angle of the chamber, in whatever direction that may be. In a case of large multiple epithelial cyst of the iris following cataract extraction, contrary to the directions of Dr. Meller and of Prof. Fuchs (*loc. cit.*, p. 359), we made puncture through the cornea and incision of the cysts with a narrow Græfe knife. Some of the cysts were obliterated and the growth of one which remained was checked and very good vision was preserved. It seems to us that, in describing Kuhnt's (see Gama Pinto's, in Dr. De Schweinitz' Handbook) conjunctivoplasty for closing up after an excision of the prolapsed iris, its evident origin from De Wecker's conjunctival transplantation and suture, a bold and original conception, should always be traced. Kuhnt's operation, being less extensive, is somewhat easier and quicker, but in our experience De Wecker's is more likely to prove satisfactory. The novice needs the warning that in these operations the silk used must be rather coarse, the hold taken in the conjunctiva rather wide and the knots drawn not too intensely tight, or the sutures will come away before the grafted conjunctiva has "taken." In one case in which this happened to us the perforation was nevertheless closed by the material deposited upon it before the conjunctiva returned to its normal position. Cauterization of the prolapse will always lead to failure of the conjunctiva to adhere.

Corneal Transplantation. Keratoplasty (p. 216).

With corneal transplantation we have no experience. We have

often succeeded in freeing anterior synechiæ by puncturing the cornea and sawing through them with a narrow Græfe—a very simple proceeding. However, we have not been led to the great dread of anterior synechiæ which seems to possess Dr. Meller.

Extraction of Foreign Bodies from the Interior of the Eye (p. 222).

New Orleans not being a manufacturing centre, our experience in this class of operations is not so large as that of those who live in factory towns. The Haab magnet has rendered us invaluable service in cases of iron and steel bodies. How we have regretted its inability to extract bird-shot! a very common penetrating body here, where fowling is an almost universal pastime. One case in which we were obliged to remove a small shot from the anterior chamber is perhaps worthy of mention on account of its strange features. Resting in the lower angle of the chamber, the shot had, by pressure, excavated for itself a tunnel in the root of the iris. In this hole it lurked, completely out of sight when the patient was upright with the eye at rest. By certain movements of eye, especially in the recumbent position, it was flirted out upon the surface of the iris, along which it rolled like a ball on a carpet. Although it had occupied this position for three years, irritation and iritis had only appeared during the last month. An incision was made in the lower part of the limbus with a keratome, and after one or two unsuccessful attempts, during which the evasive body rolled back into its tunnel, the shot was caught in the groove of a Daviel's spoon and withdrawn. The eye remains sound, after the lapse of many years.

We can hardly agree without qualification with the dictum (p. 229): "If such foreign body is securely lodged without signs of irritation or inflammation, the operation (extraction) should be avoided on account of its unfavorable prognosis and only undertaken if threatening phenomena arise." We have, when discussing the indications for enucleation, already insisted upon the great weight that should be given to the patient's social status and intelligence in deciding whether we should urge enucleation or remain satisfied to watch and wait.

Minor Corneal Operations. Pterygium. The Ophthalmic Assistant. Anæsthesia (p. 230).

We may say that we have virtually given up the use of sub-

conjunctival injections in the treatment of corneal ulcers. The pain produced is excessive and the extensive adhesions of the conjunctiva left behind are unfortunate. Other preferable measures appear to serve us better. Pterygium. "Transplantation of the pterygium is the simplest and at the same time the most reliable method," undoubtedly. The method of McReynold's, of Dallas, Texas, not mentioned by Dr. Meller, is, however, far and away the simplest and the best; best because all other methods leave a vascular, *horizontal* scar at the site of the excision, and so lay the best possible foundation for recurrence. After McReynolds' transplantation the only scar is almost vertical, and the blood vessels of the part are directed obliquely downwards, a condition most unfavorable to regeneration. The section on the duties of the Ophthalmic Assistant is full of valuable suggestions and should be read by all who render that important service.

Anæsthesia (p. 241).

Since the adoption of the method of deep cocaine-adrenalin-salt solution (Robin) injections we make use of local anesthesia in all operations, save in the case of children or childish persons, whose terror prevents the exercise of sufficient self-control. Exenteration of the orbit and extensive plastic operations may, as Dr. Meller says, be forced exceptions. We agree that "the advantages of cocaine surpass those of all its substitutes," and we use always the 4 per cent. solution. In visual iridectomies if the instillation and injection are made not more than five minutes before the operation is performed we will not be troubled by dilatation of the pupil. We do not believe that American surgeons now make much use of the scopolamin-morphine method of anæsthesia.

Of the dressings which we use and the reasons for their employment, we have already spoken.

In closing this perhaps over-long review, we desire to repeat that it is our high appreciation of Dr. Meller's work and its value which has led us to consider at such length. It would be well if every ophthalmic surgeon of mature years and large experience would consider it a duty to review for the benefit of his confrères the methods he has found best and the reasons which have guided him to their choice.

Two Cases of Pellagra.*

By E. M. HUMMEL, M. D., New Orleans.

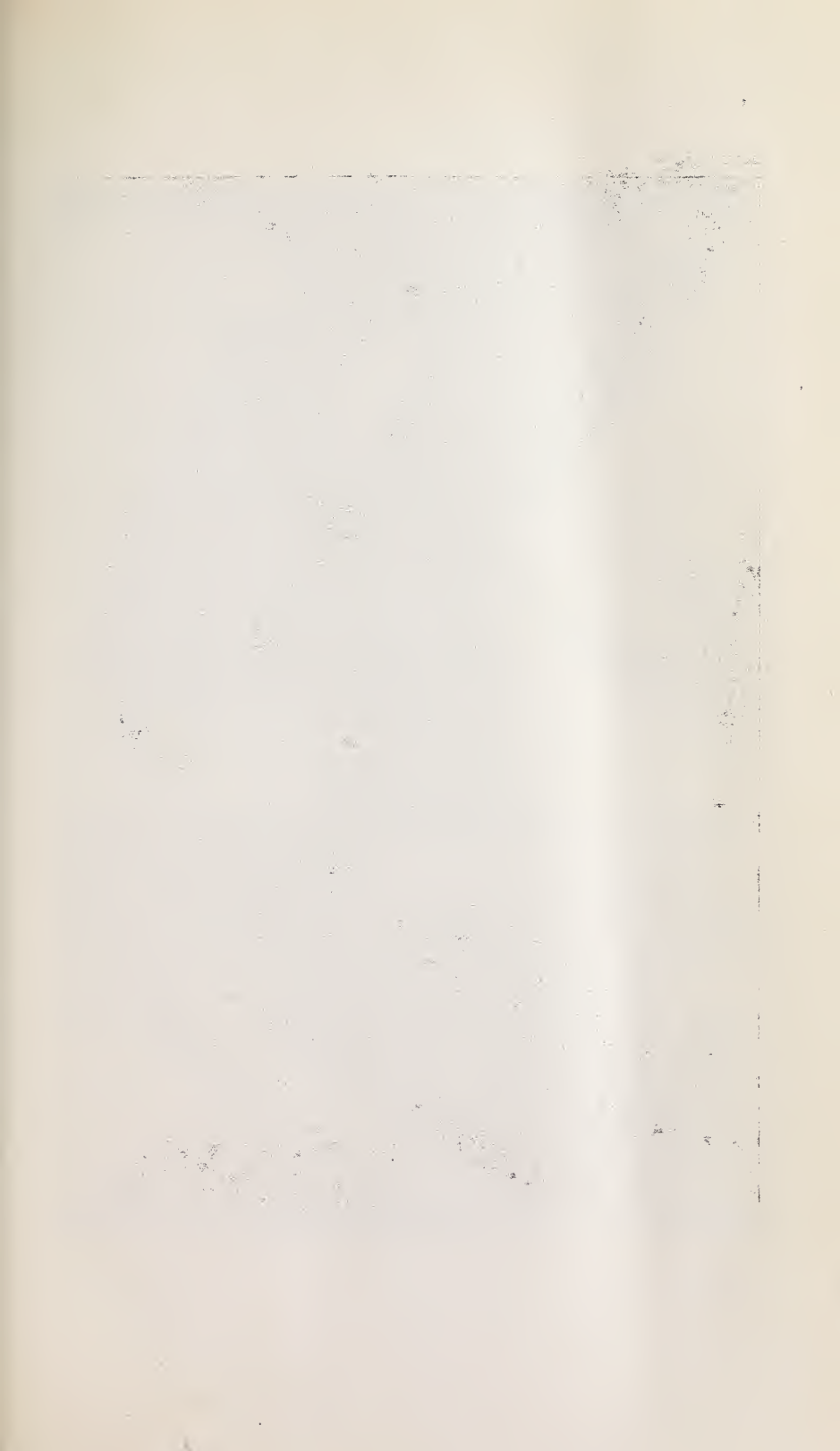
The recent interest aroused in this disease justifies me in putting on record the two following cases. I submit the histories, results of examinations and observations of patients, together with photographs, with but brief comment. The history of the subject, with reviews of the literature, etc., have been well detailed by a number of writers recently, especially Wood of Washington, Randolph of Florida, Bellamy, Cole, Searcy of Alabama and others.

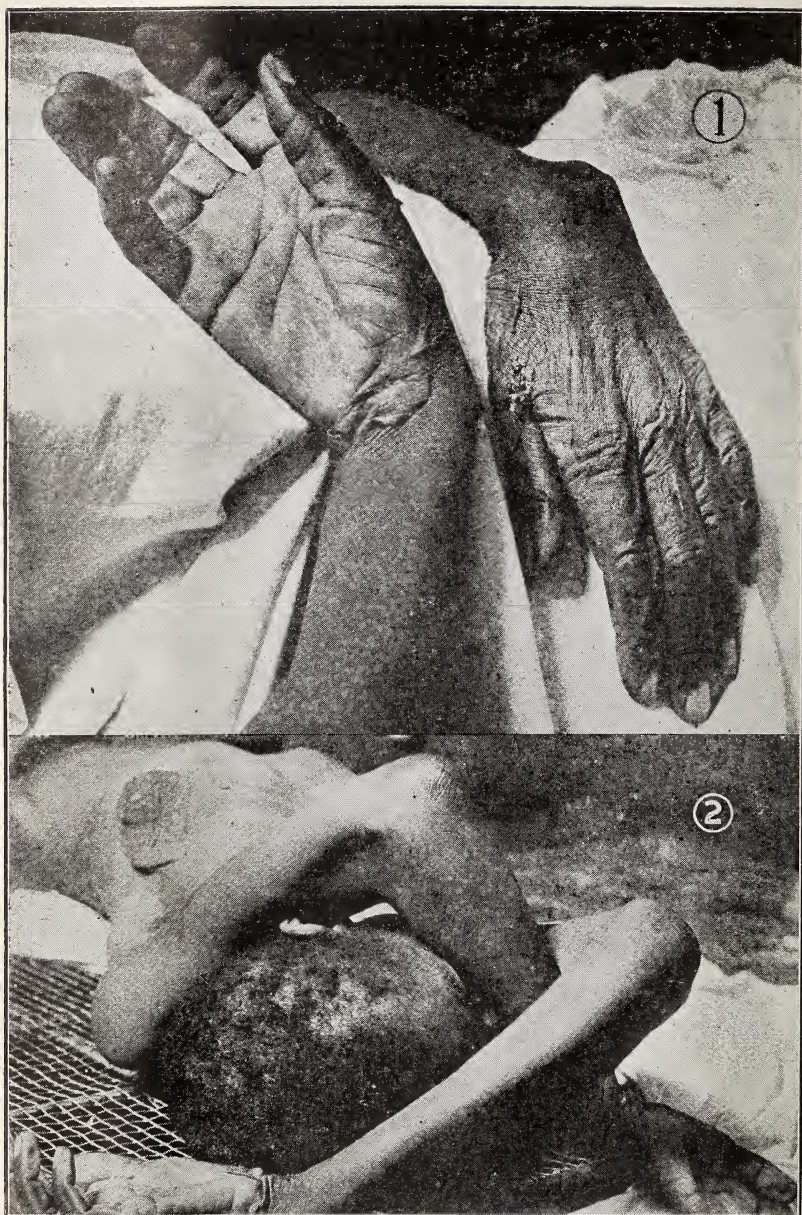
Case No. 1. Susan Boyd, a mulatto woman, aged 32, married, admitted to Ward 40 of the Charity Hospital July 17, 1909. The family history is unimportant. Personal history is that childhood was uneventful. Menstruation began at 15, and periods have been regular and natural. Patient has borne seven healthy children, no miscarriages. Denies venereal infection of any kind. Has suffered from leucorrhea for several years. Typhoid and malaria about five years ago. Patient lived in the country and has been accustomed to eat corn bread regularly all her life.

A few weeks after the birth of a child, in the latter part of last February, patient had a chill, suffered from headaches, malaise, and became extremely nervous. A short while thereafter the mouth became inflamed and sore. Patient formerly weighed over 200 pounds, but present weight will scarcely exceed 125 pounds. About three weeks prior to admission to hospital diarrhea suddenly developed with tenesmus, general abdominal pain, flatulence, vomiting and passage of mucus and blood. At same time stomatitis became worse, vaginitis became noticeable, and conjunctivitis developed. Patient was restless and extremely prostrated. Skin eruption appeared during this exacerbation of gastro-intestinal symptoms, accompanied by numbness, itching, formication and burning in areas affected.

Examination of abdominal and thoracic organs is negative. Mucous membrane of genitals and vagina are involved in ulcerative process, causing an acrid discharge which has macerated

* Read before Orleans Parish Medical Society, July 26, 1909.





1—CASE I. Showing skin eruption on hands and wrists. Note the intact condition of the palmar surface.

2—CASE I. Showing skin eruption on elbows.

DR. HUMMEL'S PAPER.



3—CASE 2.



4—Erythema of Pellagra.
(Sketch of Dr. L. J. GENELLA.)

DR. HUMMEL'S PAPER.



5—Showing eruption on hands, and condition
about genitals.

and excoriated the skin about vulva. Conjunctival mucosa slightly inflamed. There is diarrhea with frequent mucosanguineous stools. On dorsum of each hand there is an erythematous eruption with blackish discoloration of the epidermis and exfoliation. The rash begins at finger nails and terminates sharply about on a level with styloid process of radius. At the wrist the eruption extends around over frontal surface, but nowhere invades the palmar area. (See illustrations.) The skin is involved in a similar way over olecranon processes, in spots the size of a silver dollar. The eruption is exactly symmetrical in distribution on the two sides. The pulse is rapid—130 to 160—and heart action is feeble. Temperature ranges from 101 to 103. Blood examination shows no plasmodia. Widal reaction negative. Urine examination, free from casts and albumin.

The neurological examination showed: Knee-jerks absent on the left. Universal motor weakness, but rather more pronounced in the extensors. Sensation rather dull to touch and pain in the extremities, becoming more pronounced distally. The nerve trunks and muscle masses are tender to pressure. These symptoms suggest a mild degree of polyneuritis. In other respects the examination of the nervous system is negative. The general mental and nervous state of the patient might be characterized as a profound asthenia or psychasthenia. The patient's mind remained clear up to the day preceding death, when she became restless and seemed to develop auditory and visual hallucinations. This was rapidly followed by extreme prostration and fatal termination. (July 23.) On the day of the patient's death she developed a peculiar coarse tremor of the head and arms.

Case. No. 2. Ike Lord, colored male, aged 42, married, farm-laborer, born in Louisiana, admitted to Ward 31 of Charity Hospital from Slaughter, La., July 18, 1909. Family history is unimportant.

Personal History: Mumps, measles and whooping cough as a child. Sustained an attack of malaria when 16 years of age. Has used alcohol and tobacco in moderation since young manhood. Denies venereal disease. Has been accustomed to eat

freely of corn bread and grits since childhood. Last spring patient sustained a slight illness of several weeks' duration, in which bowels were loose and in which he was considerably weakened. During this attack there appeared on dorsal surfaces of the hands similar eruption to that now present, which patient attributed to handling fertilizer, and which cleared up shortly. Considered himself well until March, 1909, when he began to feel weak, nervous and run down. He soon developed stomatitis, diarrhea and stomach retained food badly. Subsequently mouth ulcerated, beginning about the corners, and lips became encrusted. At the same time the hands and feet became covered dorsally with a skin rash, which patient again erroneously attributed to handling fertilizer. All these manifestations have persisted with moderate severity, with slight fever, until admission to the hospital. Patient had been bed-ridden for three months prior thereto. Best weight 150 pounds, present weight about 130.

General Examination: Thoracic and abdominal organs seem normal. Abdomen slightly distended from flatulence. There is present a well-marked stomatitis with patches of ulceration, best developed beneath the tongue. Diarrhea is present with six or eight muco-sanguineous discharges daily. An erythematous rash is present on dorsi of hands, extending from finger nails to irregular line passing just above styloid process of radius; similarly on dorsi of feet to line just above malleolus (in neither instance are the palmar or plantar surfaces invaded); over the olecranon processes in round patch about an inch in diameter; about the neck; on the nose, cheeks and forehead. The eruption is more completely developed on the hands and at the bottom of the interdigital spaces the skin is cracked and slight ulceration is going on. On both hands and feet the line of demarcation between normal and involved skin is clear and abrupt. The eruption on face and neck is not so pronounced, and there are islands of healthy skin throughout the gross area involved. Again the skin lesions are symmetrical on the two sides. As in the previous case, it seems to be of the nature of a vaso-trophic manifestation from which there has been an extravasation of blood elements from the capillaries beneath

the horny layer of the skin, with pigmentation, shedding and tendency to roughening of the epidermis. In the first case all the mucous surfaces seem to have participated in the inflammatory involvement, not excepting that of the eyes. The same is true of the second case, with the exception of mucous membrane of eyes. Second case has a paraphymosis even.

Neurological examination of the second case shows knee-jerks and ankle-jerks equally exaggerated. Sensation is apparently normal, though this cannot be carefully tested owing to the mental state. There is some motor weakness, not out of keeping with general condition of patient. Muscles rather tender to pressure. There is a hypertonic state of the muscles, especially noticed when patient attempts to stand, when movements of the extremities are observed to be spastic and awkward. In other respects the neurological examination is negative.

Mental State:: Patient is depressed and apprehensive. On the third night after admission he became somewhat excited and confused, and had to be restrained in bed; aired some of his religious notions and wanted to preach. On the following day he was disorientated for time and place, and begged the doctor to protect him from harm; mumbled senselessly and tampered with the bed clothing and threw it on the floor; urinated and defecated in bed; performed clonic movements with his head and arms. The psychosis is regarded as a mild delirium of toxic origin—characteristic of pellagra. Blood examination showed no plasmodium, and Widal reaction was negative. This patient continued delirious and weak, with steady progression of all the symptoms, and died the night of July 25. Post mortem showed nothing significant except intense congestion and diffuse inflammation of the kidneys.

The diagnosis of pellagra in these two cases seems quite secure. I report them in order to call attention to some of the salient manifestations of the disease and to its presence in this section. Relative to the early recognition of this disease locally, I beg to say that I observed a well marked case in New Orleans as early as March of this year, and made a tentative diagnosis of pellagra, but was a little hesitant about printing a report of the case until I had had further experience and observation

of the disease. I have full notes of this case at hand, should any one wish to consult them.

I may be permitted to add a word regarding the treatment.

All medication has thus far been of little or no avail. Arsenic has been rather vainly tried; and of late good results have been reported from atoxyl, but this agent has also recently become discredited. Dr. Cole of Mobile, in a recent excellent contribution, reports brilliant results from transfusion with the blood of a recovered case. In a personal communication he has since informed me of three additional cases thus treated, with two successes and one failure. All four cases were of the so-called fulminating type and were apparently inevitably approaching death when the transfusion was done. To Dr. Cole we may eventually owe our successful treatment of pellagra. I am quite convinced that all medication thus far used is rather futile.

In conclusion I wish to acknowledge my obligation to Dr. H. P. Jones and Dr. Cole, of New Orleans, in whose services these cases occurred, for the courtesy of using the material. And especially do I wish to express my thanks to Messrs. St. Martin and Donald, the hospital internes in the wards where the cases were observed, for kindness in drawing my attention to the patients. I owe it to them to state that they had arrived at the diagnosis before I saw the cases, which I had the pleasure to confirm. These gentlemen were also kind enough to write the histories, secure photographs, etc., and it is through their interest and assistance that I am able to present these reports to-night.

I owe the accompanying excellent colored stencil to Dr. I. J. Genella, who was interested in the cases with us.

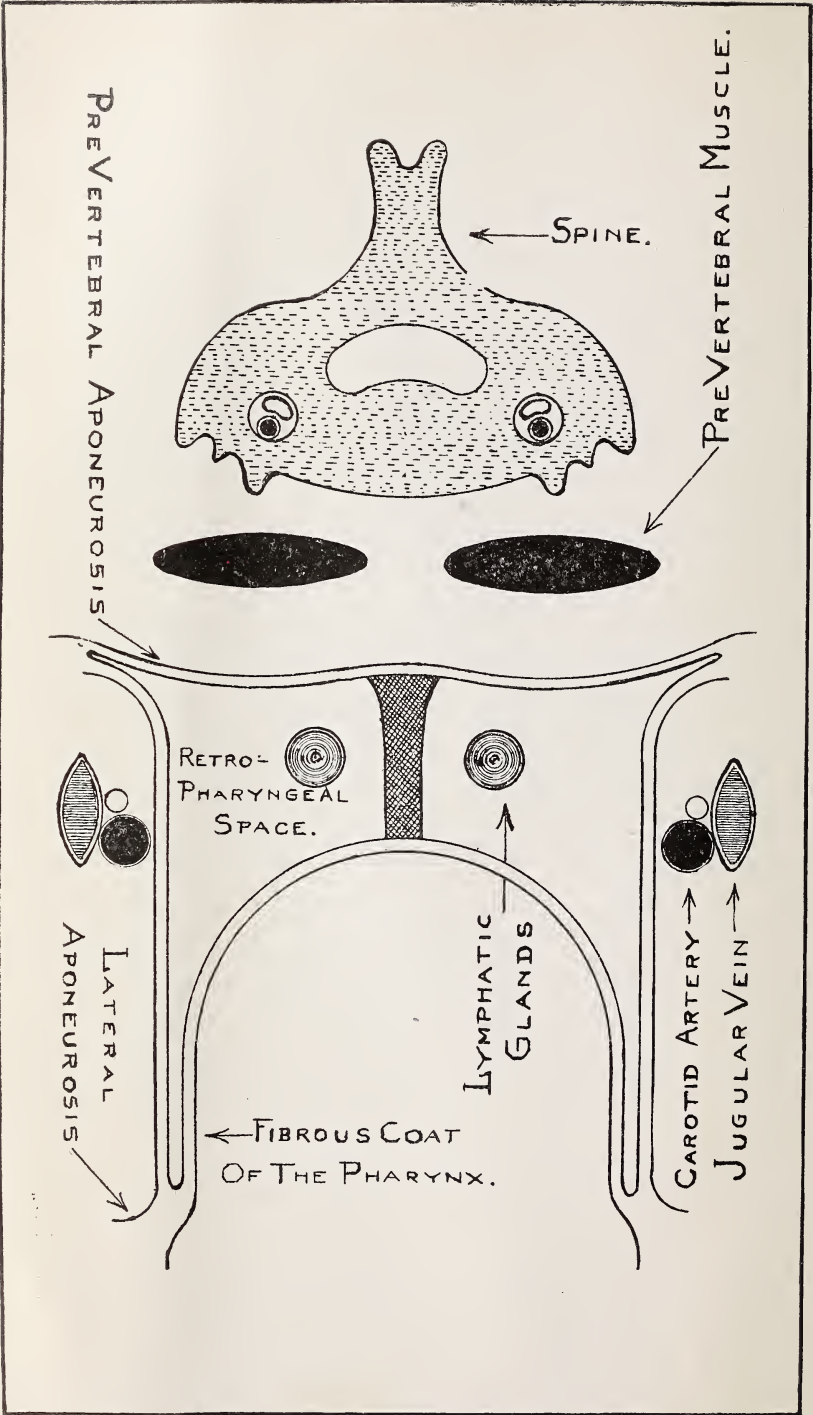
The accompanying photographs are presented for your inspection, and do not need comment.

Retropharyngeal Abscess.*

By HOMER DUPUY, M. D., New Orleans.

An abscess in the post-pharyngeal tissues is not very common. It occurs more frequently in early life. This one feature gives importance to the subject. The records of the Eye, Ear, Nose

* Read before Orleans Parish Medical Society, July 26, 1909.



Illustrating DR. DUPUY'S PAPER

and Throat Hospital show 12 cases of retropharyngeal abscess during a period of eleven years (1899 to July 20, 1909). Eight of these were young subjects. Five were under 10 years of age; three were adults. Dr. Wilbert, our interne, kindly collected this data for me. My own experience corroborates these findings as to the more frequent occurrence of this affection in children. The following typical cases were seen by me during this year in private practice.

Case 1. W. F., aged 5. The child was just convalescing from scarlet fever. Inability to swallow since a few days. Stertorous breathing. The muffled quality of the voice suggested a tonsillar abscess. Cervical lymphatic glands on both sides greatly enlarged. Acute suppuration of the middle ear on the left side. Facial expression denotes great suffering and exhaustion. Inspection of the throat showed a large reddened mass along posterior pharyngeal wall reaching way out to the soft palate. Palpation gave fluctuation. The child placed in recumbent position with head thrown backward, free incision over pharyngeal swelling to the left of median line. Foul pus obtained. On the second day after the intervention dysphagia and dyspnoea redeveloped. Line of incision reopened by probing. Pharyngeal walls pressed with finger in all directions and more pus obtained. After this the patient made an uneventful recovery.

Case 2. W. F., aged 8 months. Inability to take the breast. Breathed as if it had the "snuffles." At times there was laryngeal stridor. Examination showed a posterior pharyngeal swelling extending chiefly from the left side. Fluctuation obtained. The same line of surgical intervention as in Case 1. Relief was prompt and permanent.

Case 3. An infant aged 2 months. Nurses with difficulty. Character of breathing resembles that of infantile coryza. Enlarged cervical lymphatics on both sides. Examination discloses an infiltrated area to the left of median line on the posterior wall of pharynx. No fluctuation. It was decided not to incise until there were indication of a pus collection. In three days marked improvement as to breathing and ability to nourish. Infiltration of pharynx disappeared. This was evidently

a case of acute retropharyngeal adenitis and is reported as illustrating the first lesion in the development of this affection.

Anatomical Considerations and Etiology: Behind the pharynx and esophagus a species of cavity exists, bounded posteriorly by the pre-vertebral aponeurosis, anteriorly by the mucous and fibro-muscular wall of the pharynx, and on the sides by the lateral aponeurosis. This cavity is baggy and in the midst of areolar tissue. It extends from the base of the skull to the mediastinum. Inside the cavity lie the lymphatic glands first thoroughly described by Gillette and called Gillette's glands. The median fibrous raphe (the common point of meeting of the constrictors) divides the post-pharyngeal region into two retropharyngeal spaces. The large vessels of the neck are just immediately external to the lateral wall of this space. The greatest interest attaches to the lymphatic glands of Gillette, for they receive the lymphatic vessels from the nose, post-nasal space, pharynx and deep cervical region. Infection may start from any of these organs and focus itself in the retropharyngeal glands. The important point is that the lymphadenitis is the essential lesion in a retropharyngeal abscess of acute form. It cannot be too strongly emphasized that this affection is not commonly due to caries of the cervical vertebra—this lesion is exceptional and is only found in some of the chronic retropharyngeal abscesses.

Acute retropharyngeal abscess may be a sequel to an eruptive fever. It is usually a pyogenic process. The pus may be situated in the naso-pharynx, buccal pharynx and in the inferior pharynx the infiltration beyond the original site of infection.

Diagnosis. In infants special difficulties due to narrowness of the parts present themselves. All these can be overcome by proper manipulation of the tongue depressor and the examining finger. The bulging of the posterior wall of the pharynx, the intense redness of the parts, and the detection of fluctuation, all point unmistakably to a pus collection in the post-pharyngeal wall. The swelling may reach out to the soft palate and to the posterior pillars of the tonsil. An unusual prominence of the vertebra in the pharyngeal region or an aneurism present un-

mistakable features for a differential diagnosis. The hard, resistant, non-impressible projection of bone, the pulsations, thrill and stethoscopic evidences usually to be found in the region of an aneurismal swelling, are salient points in the differentiation. We should be on our guard, for the case is on record in which a post-pharyngeal aneurism was mistaken for an abscess and opened with fatal consequences. Peri and intra-tonsillar abscesses are very rare in children; at any rate palpation and inspection would immediately exclude these conditions. Some difficulty might be experienced when the pus exhibits a tendency to accumulate rather in the lateral pharyngeal wall than in a mesial direction. If we will but remember that while the infection starts in the lymphatic glands which lie to either side of the median line it may spread either above, downward, laterally or across the median line to the opposite retropharyngeal space. The direction taken by the pus is determined by the infinite slight variations in the anatomical arrangements of the region. The development of a retropharyngeal abscess occupies a period of several days, so that when we see the patient the swelling has probably gone beyond the original point of infection. The projection may be greatest along the median line, the whole posterior wall, however, being lifted up by the fluid behind it. Not infrequently the pus collection is felt distinctly to one side of the median line. The abscess in some instances may gravitate so low down that it is not seen through the fauces and digital exploration only can locate it. One of the first clinical signs is dysphagia. This varies from difficult deglutition to absolute inability to nourish. This is especially marked in infants. Also among the first signals of distress are symptoms referable to the respiratory apparatus. The child seems to have the "snuffles." Stertorous breathing and increasing dyspnea present themselves as the pus extends downwards, pressing in the direction of the larynx. Suprasternal and diaphragmatic tirage or depression indicate impending laryngeal stenosis and give a clinical picture which might be mistaken for diphtheria. Inspection and digital exploration will most positively clear this up. Again, the voice in laryngeal diphtheria is quite extinguished; in the retro-

pharyngeal affection it is muffled and nasal, resembling that usually present in quinsy. The neck is usually stiff and the cervical lymphatic glands enlarged. The temperature is distinctly septic, running as high as 104. Complete this by an anxious expression and great depression, and we have the well-nigh unmistakable picture of retropharyngeal abscess.

Prognosis. In the acute abscess formations no life need be sacrificed. Surgical interference brings about speedy recovery. Without this aid in infants the prognosis is especially grave, for sudden asphyxia is always possible. A mistaken diagnosis would increase the possibility of a rupture of the abscess with a sudden flooding of the larynx by the escaping fluid. A burrowing abscess, one gravitating along the lateral pharyngeal wall, can involve one of the larger vessels of the neck. Pus can even descend along the sides of the esophagus, reaching the mediastinum, thus increasing the gravity of the affection. The lower the abscess along the posterior wall the greater difficulty will be experienced in reaching it surgically. As in infants the larynx is relatively higher than in the adult, the danger of asphyxia by the protruding pus collection at whatever point it be situated is infinitely increased. It is readily appreciated that the termination of this affection hinges largely on early diagnosis with immediate and thorough surgical interference. Insufficient drainage due to timid surgical intervention or to mechanical conditions such as will obtain when the abscess is situated lower down, harbors danger. As chronic retropharyngeal abscess is either of tuberculous origin or is associated with caries of the cervical vertebra, the ultimate result is usually fatal. I recall the case of a child about two years of age presenting cervical caries with a retropharyngeal pus collection in which death supervened despite surgical treatment.

Treatment. In the very beginning, when the condition is purely a retropharyngeal adenitis without breaking down of tissue, the free and constant use of ice-bags encircling the whole neck may prove abortive. Pus formation, however, is the usual outcome and the indication is a free incision through the mouth. A guarded bistoury is used and the incision is made into the

posterior wall of the pharynx, a little to one side of the median line. The finger then first presses the pus sac from below up so as to relieve the accumulation in the region of the larynx. This pressure, in fact, is applied in all directions. Should the symptoms indicate that incision has closed with a reaccumulation in the sac a probe will reopen the line of incision and pressure is again reapplied. This closure may occur a day or so after the first surgical intervention. But the treatment outlined will seldom fail to bring about an ultimate cure. I have operated without anæsthesia and with the child placed recumbent on the lap of an assistant. With the head bent downward and backward the possibility of pus finding its way into the larynx is reduced to a minimum. As the chronic retropharyngeal abscesses are due to a tubercular adenitis or to a bone lesion, all authorities agree that the external surgical route back of the sterno-cleido mastoid muscle is the clear indication. As my purpose was to consider principally the acute infections of the retropharyngeal region, I feel that I have fulfilled my object.

A Case of Vincent's Angina, with Demonstration of the Organism.*

By ARTHUR L. WEIL, M. D., New Orleans.

Though fairly entitled to be classed among the rarer diseases, Vincent's angina appears to be by no means so uncommon as, up to the past year or two, has been supposed; the ever-increasing number of the reported cases and the already formidable literature which appeared with great rapidity after the first description of the pathological findings was made public lead to the conclusion that it has been rather an undiagnosed and overlooked, than a very unusual, condition. It is quite probable that the disease has existed in New Orleans as elsewhere, though as far as I am aware this is the first case to be reported here. I believe others have occurred, and I believe in the past year or two I myself have had two or three under observation, which, on account of my unfamiliarity with the disease and

* Read before Orleans Parish Medical Society, August 9, 1909.

unalertness in watching for it, escaped my scrutiny at the time. It is essentially a throat affection, but, being often mistaken for tonsilitis, diphtheria, syphilis or some form of stomatitis, it comes rather more often under the observation of the general practitioner than the specialist. It is for this reason that I call it to your attention, especially since the technique required to make the microscopical diagnosis is so simple as to be at the disposal of the most unskilled bacteriologist.

Although commonly known as Vincent's angina, there is the usual uncertainty as to whom belongs the credit of priority in first describing the pair of organisms which are now generally regarded as the specific cause of the disease. Vincent, Conheim and Plaut all seem to have worked simultaneously along the same lines. The latter, in 1894, was the first to make public his observations, to which, however, at the time little attention was paid. In 1896 Vincent described a form of hospital gangrene, the etiological factor of which was the presence in "symbiosis" of a fusiform or spindle-shaped bacillus and a spirillum. In 1898 both he and Conheim published a series of cases of throat angina caused by the same organisms, and since then throughout Europe the reported cases have appeared in ever-growing series. The first case in this country was reported in 1902 by Emil Mayer of New York (*Amer. Jour. of Med. Sciences*, 1902, vol. 1, p. 187), followed in a short time by others in ever-increasing numbers, until now scarcely a month passes without new cases being added to the records.

The disease is known under a number of synonyms chiefly descriptive in character, any of which would be more appropriate than the meaningless appellation by which it is generally called, derived from the name of its apocryphal discoverer. Since it is generally described under that name, however, it is perhaps better for the sake of uniformity to conform to that foolish custom which names a pathological entity after its discoverer rather than from one of its distinguishing characteristics. Among its other synonyms are ulcero-membranous angina, ulcerous angina, diphtheroid or chancreoid angina; but the most descriptive is that used by some of the Germans, "*Spirochæten-bacillen Angina*." The multiple nomenclature suggests the vari-

ous phases under which the trouble may be met; ulcerous, membranous, resembling diphtheria or simulating the initial lesion of syphilis.

The disease from a clinical point of view may be defined as a localized acute or sub-acute inflammation characterized by a membranous exudate upon the part involved, which is usually the tonsil or fauces, less often the cheek, tongue, lip or any of the oral mucous membranes, followed by erosion or ulceration of the underlying tissues, with or without involvement of the adjacent lymph glands and constitutional symptoms more or less pronounced.

The appearance of the diseased parts is described with considerable uniformity by most observers. Usually confined to one tonsil, it begins as a rule with a small, grayish-white exudate; at this stage very closely resembling diphtheria and often mistaken for it. The exudate gradually increases in area, the borders are marked by a reddened, swollen zone, it penetrates more deeply into the tissues, at this stage forming an ulcer with a dirty grayish surface, sharp, well-defined edges apparently more or less infiltrated, simulating in gross appearance a chancre of the tonsil. The exudate is soft, friable, easily removed, leaving a bleeding or rather an oozing surface beneath. After removal the membrane quickly renews itself. It gradually spreads, sometimes over the surface of the whole tonsil and beyond it on to the soft palate and uvula; occasionally the second tonsil and pharyngeal wall may be involved, and some cases have been reported where the process has extended to the larynx. Arrowsmith reports a case in a recent number of the *Laryngoscope* where the epiglottis and part of the larynx were ulcerated, followed after recovery by permanent laryngeal scars and impairment of the voice. In most cases, however, it is confined to one tonsil and the adjacent soft palate and side of the uvula. The process may begin as a single ulcer or in several small spots which gradually fuse into one larger one. The cervical and submaxillary lymph glands may be swollen and tender, though as a general rule they are, I believe, unaffected.

There is usually more or less dysphagia, slight at first, but

gradually increasing with the spread of the disease and its transformation from the membranous to the ulcerous type, at which time swallowing may be very painful and interfere with nourishment. The patient complains of dryness in the throat and a tickling sensation. The breath is usually fetid, but in my case it was not. There may be anorexia, constipation or diarrhea, general feeling of malaise, headache, prostration and other symptoms attendant on a rise of temperature. The fever is usually moderate, but in some cases is as high as 102.5° or 103° .

It is said to have a predilection for the adult male, though some observers maintain that it is more common in children. Predisposing causes are said to be abuse of tobacco, eruption of the second teeth in children or of a wisdom tooth in adults, carious teeth or those covered with tartar, lymphoid tendency, syphilis or mercurial stomatitis. Trauma also has an etiological bearing and several cases have been reported where the disease has become implanted upon the fresh stump of an amputated tonsil. It may also accompany various acute diseases.

The differential diagnosis is really the most important feature of the disease, for it is its great resemblance to diphtheria in the early stage and to syphilis in the later that renders it of importance to the medical man. It has been frequently mistaken for diphtheria, treated with antitoxin and the patient isolated or, what is worse, sent to the diphtheria ward before the true nature of the case was discovered. Likewise mistaken for syphilis, it has been treated energetically with mercury, the one treatment that seems contraindicated in a true Vincent's angina. One of my earlier cases, which in the light of present experience I feel quite sure was a Vincent, but which, unfortunately, I did not confirm at the time, will illustrate this. The patient, a man of 23, came to me with what was apparently a typical diphtheria exudate. The symptoms not being urgent, I deferred the use of antitoxin until I could receive the culture report. This being negative and a second culture the same, I did not use the antitoxin, but treated the patient expectantly. In a few days the membrane was transformed into an ulcer much resembling a chancre, and I caused the patient no small

uneasiness and myself much worry trying to elicit the possibility of a primary throat infection. I feel sure by the examination of a single slide the diagnosis would have been cleared up at once. The process healed in about two weeks treated with silver nitrate applications and a simple alkaline gargle.

The presence of the disease does not preclude the possibility of syphilis or diphtheria; they may exist in conjunction, though, as Berkeley suggests, the latter develops usually only after the patient has been sent to the diphtheria ward. He suggests the advisability of preparing and examining a slide (it can be done in a few minutes) whenever a culture swab is taken for the laboratory. Where syphilis is present it is better first to cure the angina before using mercury, as mercury seems to have a decided influence in prolonging and aggravating the disease.

The prognosis is as a rule very good. In one to three weeks the process usually runs its course, though a few fatal cases have been reported. In these cases, I think, however, death must have been due to some intercurrent affection or to a true noma, with which condition the present is rather closely allied.

The treatment generally recommended is local applications of tr. of iodine or Lugol's solution, together with the use of a spray or gargle of some simple antiseptic solution such as boric acid. I have used silver nitrate locally in conjunction with a simple gargle. Some authorities recommend vigorous rubbing or brushing of the parts with the solution used, but the general consensus of opinion agrees that the less the trauma the quicker the cure. I believe the process will run its course about as quickly without any treatment at all.

The determining factor in the production of the disease is the presence of two bacterial forms of distinct and different morphology. As described by Berkeley, they are as follows:

(1.) A spindle-shaped bacillus which Vincent called the *Bacillus fusiformis*. It is 7 to 14 μ in length, 1 to 2 μ greatest thickness and stains fairly with most of the aniline dyes, very brightly with carbol fuchsin. In swabs from the throat the germ is nearly always beaded, showing two to five unstained zones with stained zones between. They decolorize readily with 95%

alcohol and with mineral acids. Effect of the Gram method is disputed, but probably it is negative. Whether or not the bacillus is motile is still a mooted question.

(2) A spirillum $\frac{1}{2}$ to $\frac{1}{3}$ as thick as the bacillus, staining much more lightly as a rule and showing two to five spiral turns which may be tight or loose. Its length is from 15 to 25 m., it is generally agreed to be motile. In a fresh specimen from my case the motility was demonstrated. Stained flagellæ have not been demonstrated either in the bacilli or the spirillæ.

Numerous culture experiments have been made, but thus far no one has succeeded in growing the organism in pure culture. In some cases a mixed culture has been successfully carried through several transplantations, but it is soon destroyed by an overgrowth of other organisms chiefly cocci.

The two organisms must be present together, that is in "symbiosis" to cause the disease. The presence of one alone is insufficient. It has been suggested that the two are morphological variations in the life history of a single trypanosome. This question cannot be satisfactorily settled until the organism is successfully grown in pure culture. Most observers prefer to believe that they are two distinct organisms each a saprophite whose normal habitat is the human mouth. The spirillum exists as a saprophite around the gums and in hollow teeth while the bacillus is said to have been found normally in the tonsillar crypts. Where the two are found together, however, the typical pathological lesion invariably results.

In the above description I have refrained largely from citing authorities as a fairly full bibliography is to be found at the end of the article by Berkeley (*Med. News*, Vol. 86, 1905, p. 978) to whom I am indebted for much of my material.

My case was as follows: J. B., colored, 21 years of age, single, occupation butler, presented himself at the clinic, May 25, 1909. Family history negative; previous history negative; does not drink or smoke. Five or six days ago patient began to have pain on swallowing, slight at first, but becoming more marked until now he can swallow only liquids and that with difficulty. Says he had considerable fever at first, now not so much. The temperature at present is 100; general feeling of malaise. No

constipation or diarrhea; slight headache; no fetor to the breath.

Examination:—There is a deep ulcer in the upper portion of the left tonsil extending slightly below the middle, with clean cut, well defined edges and a circumjacent area of redness, edema and moderate infiltration. The ulcer is covered with a thick, dirty grayish membrane, soft but not easily removed, revealing a bleeding surface underneath. Presents all the external appearances of a syphilitic ulcer of the tonsil, and I was inclined to that diagnosis until examination of the smear showed the presence of the Vincent twin-organisms.

The preparation of the slide is very simple. A sterile swab is inserted deeply beneath the membrane and rubbed into the underlying tissue. With this a smear is made on a slide or cover glass, fixed and stained with any of the ordinary aniline dyes. On examinations the organisms are found to be present in large numbers so that the appearance of the slide is quite characteristic. The slide which I shall show has been stained with Wright's blood stain.

Treatment: Daily penciling with 8% silver nitrate and a boracic acid gargle at home, followed by complete recovery in eight days.

Ectopic Gestation.*

By P. T. TALBOT, M. D., New Orleans.

In reporting the following case, I do so without intention of offering anything new to the members of the Society, but as of unusual interest, occurring as it did in my limited experience, without the diagnosis of tubal pregnancy being made prior to operation. This, connected with the findings of the operation, prompted me to report same, hoping it might prove of interest to some of the members.

The case further impressed me, in that it is not always easy to foretell what one may expect to find after opening the abdomen.

History:—Mrs. G. M. J., married, native of Louisiana, aged

* Read before Orleans Parish Medical Society, August 23, 1909.

23. Family history, no history of any family taint; previous history, had usual diseases of childhood. No complications. Began menstruating at 18, always regular and no pains, usually three to five days in duration; last menstruation in the middle of July. Married four years ago, had only one child, who is three years old, which had to be delivered with forceps. History of other illness is negative.

Present Illness.—Since birth of child three years ago, painful menstruation and constipation. During the last month she has been losing very much, accompanied with pain referred to the hypogastric and right iliac region of abdomen; described as cramp like at times. During this time the flow would stop for a day or two, which on returning would be very profuse. Previous to this menorrhagia the patient felt as if she was pregnant, although having no definite symptoms of pregnancy. She was admitted to the Charity Hospital on August 12, and upon examination revealed the following condition:

Very well nourished white female. No anemia. Pupils and other ocular examination normal. Mucous membranes were of good color and well nourished. Tongue somewhat coated with whitish coat; breath was foul; throat was normal; heart normal; pulse rate slightly increased in frequency, good volume, arteries normal; lungs normal. Abdomen was somewhat distended, no evidence of any tumor or painful areas was found. Liver somewhat enlarged, smooth; spleen normal; kidneys were normal. No evidence of any skin lesion. Vaginal examination revealed a laceration of cervix, which was somewhat dilated and somewhat softened; marked retroversion of the uterus, the fundus being plainly felt in the posterior cul-de-sac and very hard, enlarged, some bloody discharge in vagina. The right appendages were somewhat sensitive to palpation, otherwise negative; the left appendages were normal. The patient continued to lose up to the time of operation, though not profusely, the use of the ice bag being the only palliative treatment employed.

OPERATION.—On Tuesday, August 17, the patient, after the usual preparation, was given ether anesthesia and again thoroughly examined, but revealed nothing new. The uterus was

well dilated and curetted. A typical Emmett's trachelorrhaphy for the lacerated cervix performed. Os was found dilated sufficiently to admit the passage of the small finger, the internal surface feeling very rough and thickened, a slight bloody discharge was found oozing from the internal surface of the uterus. After thorough preparations the abdomen was opened by a median incision. On inspection my attention was called immediately to a bloody discharge over the surface of omentum and intestines, uterus and both appendages which up to this time could not be accounted for. Further investigation of the organs was made when the blood was found to be exuding from the fimbriated extremity of the right tube, which also contained a globular mass about two inches from the cornua of the uterus, boggy and dark red in color, no adhesion; right ovary contained a few small cysts. Left tube and ovary were found normal. Uterus was retroverted and at the fundus very hard, fibrous and enlarged, which appeared disseminated throughout its structure. The right tube was resected in toto and a round ligament suspension operation performed; abdomen cleansed well and wound closed with tier catgut sutures. The resected tube was then incised to its lumen; a small cystic tumor was found with a small pedicle which was attached to the walls of the tube. The pedicle was about one inch long; and the cyst one inch wide by one and one-half inches long, very dark in color and boggy in feel. Since the operation the incision has done nicely, the uterine hemorrhage has ceased and she gives all evidence of making an uneventful recovery.

I am greatly indebted to Mr. Bayliss, the resident student in charge of Ward 72, for his kind assistance in preparing these notes.

Regional Anesthesia, with Report of Several Cases.*

By CARROLL W. ALLEN, M. D., New Orleans.

Those who resort often to the use of local and regional anesthesia in major operations are impressed with the facility and ease with which suitable operations can be performed under a proper use and distribution of the anesthetic solution.

* Read before Orleans Parish Medical Society, August 23, 1909.

Of late years the more improved methods of administering general anesthesia, particularly ether, by the open method, have tended to check the use of local anesthetics, especially is this so in large hospitals or clinics where time is an element. However, a certain percentage of cases are easily and much more safely operated by this method than by general anesthesia.

Some operators prefer local anesthesia for all suitable cases. Kocher almost invariably uses it for removal of the thyroid gland and some general surgeons in this country attract large numbers of patients by operating by this method.

The fear of general anesthesia entertained by many people, especially if they had one experience and suffered much from post-operative nausea, will often deter them from subsequent operative treatment, unless imperative. To this group we can add the nephritic, pronounced alcoholic and diabetic, the extremely feeble and senile patient, and those with severe cardiac lesions, which render them unsafe risks for a general anesthesia, or even spinal anesthesia.

This class of patients can be easily and comparatively safely operated upon for many surgical conditions by local anesthesia, with practically no discomfort to themselves.

The range of operative possibilities include amputations and all operations on the extremities and superficially situated parts of the body, thoracotomies, hepatotomies, cystotomies, herniotomies, many perineal, rectal and vaginal operations, removal of goitres and all superficial dissections, and, to a limited extent, exploratory laparotomies and simply, quickly executed work in the abdominal cavity; in uninflamed conditions only the parietal peritoneum is sensitive, but shock without pain is produced by prolonged handling of the viscera.

Before entering upon a discussion of the different operations and anesthetics, it may be well to consider the subject in a general way.

The disadvantages of local anesthesia in any major operation are:

The increased length of time required, which will always operate against its popularity by very busy men in large clinics. However, a better familiarity with methods of infiltra-

tion and proper instruments for the process will greatly reduce this time.

The additional trauma suffered by the tissues, due to the infiltration, which in some few cases might favor infection and interfere in obtaining union by first intention, must be taken into consideration in operating upon patients in greatly reduced states or upon tissues of low vitality. And it is obviously unsatisfactory in very nervous patients and children.

The distinct advantages in addition to those of safety already mentioned are:

It is unnecessary to starve the patient beforehand. The alimentary canal should be well emptied by a suitable cathartic and a light nutritious meal given at the regular meal-time preceding the operation. All patients stand local anesthetics better when fed beforehand and it is a distinct advantage in preventing weakness or shock in debilitated subjects.

There is no post-anesthetic disturbance to the alimentary canal, which is often so trying to both patient and physician, such as the vomiting and straining accompanying the act, causing both pain and frequently, when severe or prolonged, jeopardizing the results of the work, when this has been about the face, mouth or abdominal walls.

The possibility of dilatation of the stomach, intestinal paresis or tympanites is eliminated.

The regular post-operative nourishment is not interfered with; this is of great importance in weakened individuals and permits a more rapid recovery and convalescence from the operative procedure. Many weakened subjects may survive the operation, but die from exhaustion due to interruption of nutrition, as the result of a disturbed alimentary canal.

The pain in the back so many suffer from, after prolonged general anesthesia, due to complete relaxation of all ligamentous supports to the vertebral column, permitting sagging of the lumbar curve, with necessary strain, is avoided.

The general preparation of the patient for any extensive procedure should include a preliminary injection of morphin,

about 1-6 gr., to which scopolamin 1-150 gr. can be added, if desired and given about one hour before the time for operation. This is sufficient to forestall any restlessness, nervousness or anxiety on the part of the patient and produces a feeling of comfort which increases confidence.

As to the anesthetic to be used, much can be said. Of late years many anesthetics have been added to our armamentarium, giving us agents less dangerous than cocain and possessing other advantages.

Considering a few of the most important:

Commencing with cocain as a standard for comparison, it may be said that $\frac{3}{4}$ gr. is the maximum dose that can with safety be absorbed at one time. This, however, is influenced by several factors, the rate of absorption and concentration of the solution being of primary importance. Fatal results have followed the instillation into the eye of 10 minims of a 4 % solution, while many times this quantity can be used in the tissues in dilute solution and when slowly absorbed.

Eucaïn-B. This is from 1-2 to 1-3 as toxic as cocain, but slightly less effective in its anesthetic properties. To obtain the same effect as with cocain, the solution must be about 25 % stronger.

Other agents are alypin, stovain, tropococain and novocain, all slightly less effective in equal quantities than cocain, occupying in this respect about the same position eucaïn does and ranging in toxicity from two to six times less, novocain being the least toxic. Their rapidity and duration of action vary somewhat as compared to cocain, being at times apparently slightly slower in action and shorter duration, except with novocain, which maintains anesthesia decidedly longer.

Their action upon the tissues is somewhat different. Cocain produces an ischemia, the other agents either producing no effect upon the capillaries at all or producing an hyperemia. This, however, is not of consequence and is overcome by the use of adrenalin. Their solubility is slightly less than cocain. Eucaïn is the least soluble, $3\frac{1}{2}$ %. For purposes of sterilization, all stand heating better than cocain. As to the

method of using these agents, the Schleich and Braun solutions of cocain and eucain have in my hands filled every need and I have not used the other agents except in an experimental way.

Schleich No. 1 is 1-5 of 1 % cocain.

“ “ 2 “ 1-10 “ “ “

“ “ 3 “ 1-100 “ “ “

Each solution contains 1-40 of 1% morphin and 1-5 of 1% sodium chloride.

Braun solution is .2% eucain B and .8% sodium chloride.

These agents, when used in these minute solutions, while effective as anesthetics, are not likely to prove toxic; when acting as anesthetics they have been fixed by the tissues and this part so fixed cannot produce toxic symptoms nor can it be recovered from the tissues, as cocain; nor is it excreted as such. If toxic symptoms arise it is due to an excess having been used, the longer it is retained in the tissues, the more will it be fixed. This is true of all poisonous agents, strychnin, atropin, morphin, snake venom, etc., by retarding absorption; through the use of constrictors or other means the toxicity is greatly lessened and local effects prolonged or intensified. We make a practical application of this fact by the use of adrenalin added to our anesthetic solution, but as this agent is not free from danger, it must be used cautiously, not more than 10 to 15 minims of a 1 to 1,000 solution added to the total amount of the anesthetic solution to be used.

In addition to its hemostatic effects, rendering ischemic the field it intensifies, the effect of any given quantity of the anesthetic used probably as a result of the ischemia it produces, as well as prolonging the contact of the drug with the tissues. And this retaining of the anesthetic solution in the tissues longer naturally relieves the need of repeated injections, thus lessening the need of additional quantities, with possible toxic action and avoiding the effect of this additional trauma in prolonged operations.

As to the amount of anesthetic solution that can be safely used this way and the danger of possible toxic effects, I may say that in over 100 major operations performed with these

agents, I have never seen any toxic effect and have frequently used from 6 to 8 oz. of Schleich No. 1. This represents about one grain of cocain to the ounce. It must also be remembered that much of this quantity escapes from the tissues through the incisions that are made.

A brief review of some of the operations are :

Exophthalmic goitre. Trahan, aged 26. Entered Ward 9 July 26, 1908. Trouble of two years' duration. Markedly emaciated and weak. Prominent staring eyes, with a pulsating tumor as large as the fist in the thyroid region. Heart enormously dilated, weak, rapid and irregular, with murmurs over the entire chest. Respiration rapid and irregular. Pulse very irregular and weak, varied from 98 to 140. Temperature from 99 to 101 F. The right lobe and isthmus were removed, the left lobe being but slightly affected, was not disturbed. Anesthesia was perfect. The patient conversed with us during the procedure and rendered assistance by turning his head in different positions. He winced once or twice when we pulled on the trachea in lifting the gland from its bed. He left the table in good condition, apparently not affected by the operation. His progress for a few days was much disturbed by a weak and rapid heart, but he finally made a good recovery and left the hospital August 20. He wrote me later that he was entirely well, but has since died of pneumonia.

These cases are particularly suited to local anesthesia and I doubt if this particular one could have stood the operation with a general anesthetic.

Herniotomies. I have done a great many herniotomies, inguinal, femoral and umbilical, by local anesthesia and consider hernia, of all the major operations, one of the easiest by this method. Regarding the technic, I will have something to say on another occasion, as time prevents a lengthy discussion now, but will report three complicated cases.

Pear, aged 64. Left inguinal hernia of 34 years' duration, extending to near the knee. The picture gives a good idea of the condition. Operated August 27, 1908. Sac found to contain much omentum and intestines. The omentum was resected. This operation was successfully completed, with no

discomfort to the patient. I have recently seen him and he has remained well.

Flood, aged 78. While in Ward 9 last summer, convalescing from the removal of a cancerous growth of the face, had an old inguinal hernia of 15 years' duration to become incarcerated and resisted all our efforts at reduction. He was suffering much pain and was operated at once by local anesthesia. He has remained well from the hernia, but is back in the hospital again with a broken leg.

Mrs. D., aged 50. Operated at Touro, November 6, 1908, for femoral hernia of the bladder. The bladder was resected before reduction was accomplished. Anesthesia perfect.

The next case is rather unusual and one of the most interesting upon which I have ever operated, and, owing to the rare combination of conditions found, I would like to put it upon record at this time.

H. was admitted to Ward 69. Had been suffering from dysentery for several weeks, having frequent bloody stools, in which the amebae had been found. Medical treatment checked, but did not stop the bloody evacuations. He shortly developed pain and swelling over the region of the liver; aspiration found pus, which again showed the amebae. He was prepared for operation and the liver again aspirated. No pus was located, but instead a large quantity of clear fluid withdrawn from the pleural cavity; as the patient was very weak, the chest was not opened, as I did not think thoracotomy justified for a serous accumulation, but instead formalin and glycerin were injected. He continued to do badly, so on August 9, 1909, under local anesthesia, the eighth rib was resected and a large pleural effusion evacuated; the fluid was now of a sero-sanguineous character. I felt this was not sufficient to account for the marked sepsis and diffusion, as well as the physical signs we had obtained on examination, so explored further, enlarging the opening in the chest wall for inspection. The lung was seen bound down to the diaphragm in the middle line, some distance from the chest wall and looked and felt boggy. An aspirator was passed into it a short distance and withdrew a thick, white creamy pus. A free in-

cision was then made, opening an enormous pus cavity, which must have contained several pints, and extended in toward the median line about 8 inches. Through this opening in the lung I explored the region of the diaphragm. At one point it felt distinctly fluctuating and with my finger I broke through the diaphragm, opening a small pocket of pus of a chocolate color. It was of small size and at a rather inaccessible point, which explained our missing it the second time with the aspirator. We thus had in this case three distinct cavities, each yielding a different kind and color of pus. The openings into these several cavities were all enlarged and made to drain through the common opening in the chest wall by large sized drainage tubes. The operation was entirely without pain. The different specimens of pus were separately collected and examined and found to contain an organism resembling the Shiga bacillus, but no amebæ. It is possible he was suffering from a double infection. The only way I can account for this peculiar abscess combination is that the liver abscess ruptured into the lung and when relieved of its tension the opening closed. The pleural effusion was probably a secondary phenomena, as a result of the nearby inflammation. The patient rallied considerably after the relief from the pus accumulations, but died several days later, the bloody discharge from the bowels having continued.

Talma operation for cirrhosis of the liver. This I have done twice in the last few months, slightly modifying the procedure. Both cases were unfavorable subjects, jaundiced and very weak, besides having other complications. Very little was promised by the procedure, but as it could be painlessly done and involved little risk, it was decided to give them the benefit of any chance they might have. The abdomen was opened on each side of the umbilicus and the cavity explored. The liver in each case was very small, greyish-white, nodular and of wood-like hardness, a large vascular part of the omentum was drawn out of each opening and fixed to the parietal peritoneum, the protruding end was then tucked all around the opening into pockets made in the recti muscles, in close prox-

imity to the lower branches of the mammary artery and vein. This procedure was quickly executed and entirely painless.

I would like to thank Drs. Gelbke and Gillaspie for the opportunity of operating on these cases and their assistance at the time.

I could continue this recital of cases indefinitely, but the above cases are sufficient to illustrate the possibilities of local anesthesia in selected cases of major surgery.

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Notes on Coxa Vara and Its Treatment.

By PAUL A. McILHENNY, M. D., New Orleans.

Coxa vara, as the term implies, is a deformity of the hip, that may be unilateral or bilateral, in which the head or neck of the femur has been displaced downward till it occupies a position that is more nearly a right angle with the femoral shaft than is normal. Although this deformity has been considered sufficiently important to cause numerous articles to be written upon it in Europe and in the Northern and Eastern parts of this country, our Southern medical literature is woefully poor in contributions upon the subject, which is to be deplored, especially as the number of cases is not small.

Before 1881 coxa vara was considered a pathological curiosity, and little attention was paid to it as a malady, but in that year Fierani first described the condition and offered several theories as to its causation; since then volumes have been written upon the etiology, pathology, symptoms and treatment, so that we now have a long list of the etiological factors; these are congenital osteomalacea, rachitis, chronic joint inflammation, tuberculosis, osteitis deformans, trauma and an abnormality in the direction of the epiphyseal line between the head and the neck of the femur. Thus we have three distinct varieties of

coxa vara, namely congenital or infantile, adolescent and traumatic.

The congenital form of coxa vara is due either to a mal-position of the fetus in utero, in which the thigh is extremely adducted and flexed up by abnormal lateral pressure, or it may be due to congenital rachitis; the infantile which is closely allied to the congenital, is due to rachitis, and in the majority of cases the hip is the only joint showing evidence of that disease. The adolescent form which appears most frequently between the 13th and 17th year, may be due to late rachitis or some form of malacea, but in the majority of these causes there seems to have been a separation of the epiphysis, which has been clearly demonstrated since X-ray photographs have shown us the real condition and position of the neck and head.

The traumatic form is met with principally in adult life, is occasionally seen in childhood, and is due to an intra, and in some cases to an extra-capsular fracture of the femoral neck, which resulting in a fibrous union has allowed the head to be displaced downwards and has thus produced the deformity.

In the pathology of coxa vara the salient points of the different varieties are very similar, in that there is always a downward displacement and backward version of the femoral head or neck, and a corresponding upward and forward displacement of the great trochanter. In the congenital form the head seems to have lost its natural roundness, appears flat, and is so situated in the acetabulum that its inferior surface does not articulate with the inferior cotyloid rim. The neck is bent downwards and backwards with the convexity forwards, is thicker and shorter than normal, and in some cases is continuous with the lesser trochanter. The epiphyseal line is vertical or slightly diagonal from outwards and downwards, showing some faulty development in the head or neck. The infantile shows practically the same points as the congenital but being rachitic in origin, often shows marked evidence of that disease in that there is a characteristic bending of the femoral neck, and on cross section the neck and head show rachitic changes in the bone; in contrast to the congenital form, however, the epiphyseal line runs diagonal from above and downwards and inwards instead of downwards and outwards. In the adolescent type we find that instead of a bending of the neck there is generally a displacement of the head of

the bone; there seems to have been a slipping or separation of the epiphysis, principally at the upper margin, so that a wedge shaped gap appears between the neck and the upper margin of the head; this is due to an injury, or to an abnormality in the direction of the epiphyseal line whereby the weight bearing capacity of the femoral neck is lessened and as the body weight increases the head gradually slips downward. If there is a history of a disease causing an inflammatory process, or a malacea there may be a bending of the neck downward and backward with evidences of the disease in the bone. The traumatic form presents the same pathological conditions that are found in any other simple fracture.

As coxa vara may be unilateral or bilateral, there are certain symptoms that are not common to all forms. The majority of the cases present flexion and adduction of the thigh, with overversion or sometimes inversion of the feet. The bilateral is most often found in the congenital and infantile forms, and as the legs are generally the same length, though there is actual shortening due the depression of the femoral necks, the child has a waddling gate very similar to that seen in cases of double congenital dislocation of the hip, and in extreme cases, during locomotion, the legs may cross one another. There is marked lardosis both in the unilateral and bilateral types, due to the flexion of the thighs, and on viewing the patient posteriorly it will be seen that there is marked elevation of the great trochanters which causes an abnormal prominence of the hips; the gluteal muscles are wasted and the buttocks flat.

On manual examination there is found to be limited rotation, abduction and flexion, and possibly some pain on manipulation, which suggests the possibility of tubercular hip disease, though on further examination it will be found that the muscular spasm of coxitis is absent. In unilateral cases the shortening is more marked and there is a much more decided limp than in the bilateral, though there is more discomfort in walking and sitting in the bilateral form. There is a history of gradual onset, and no peculiarity was noticed till the child began to walk. The infantile form generally gives a history of rachitis, and though in most cases the hip is the only joint involved, there are cases which present the characteristic bog lews and scoliosis of rachitis. In adolescent coxa vara the majority of cases are unilateral, and present a history of some slight

injury which incapacitated them for a few days, after which they were able to be about as usual but with a sensitive hip; after a time, varying in length from a few weeks to several months, the discomfort becomes more pronounced, and surgical advice is sought. We then find that the leg is shorter, more atrophied and its motion is more restricted than its fellow, and that there is an awkwardness in the gait that was not appreciable before the injury. On measuring the leg we find that the distance from the great trochanter to the external malleolus is equal to that of its fellow, but that the distance from the anterior iliac spine to the internal malleolus is shorter than the other and that the height of the great trochanter above Nelaton's line corresponds to the shortening of the leg. If an X-ray photograph has been taken of the hip we will find that the head of the bone had been displaced downwards and backwards carrying the neck with it, whereas in the congenital and infantile forms there is a decided bending of the neck downwards and backwards with the convexity forwards; this convexity may be so pronounced that it can be felt in the groin when the leg is manipulated. If there is a history of an injury the X-ray will show that epiphyseal separation was only at the upper margin of the line, producing the wedge shaped space that is generally filled with fibrous tissue, while at the lower margin there was apparently no separation. When the case has begun insidiously this separation will not appear, but the vertical epiphyseal line which predisposes to weakness of the femoral neck will be evident. Traumatic coxa vara presents much more aggravated symptoms than the other varieties, because the normal position of the limb has been suddenly changed, and the femoral neck has been subjected to more immediate strain than in those cases where the deformity was insidious; therefore in these cases the pain is often intense and passive motions are greatly restricted by involuntary muscular contractions; the limp is more decided, and as the length of time since the injury increases the deformity becomes more pronounced, due to the fact that the bony union has not taken place, and the fibrous being insufficient to support the body weight the head and proximal fragment of the neck are gradually displaced downwards, thereby increasing the shortening of the leg, and the prominence of the great trochanter.

TREATMENT—If one is so fortunate as to see and recognize this

deformity in its incipiency, then by the use of rest, massage, supporting braces, continued extension, plaster of Paris bandages, a strengthening diet and eventually the administration of bone building substances it is possible to cure the whole process, but unfortunately such cases rarely apply for treatment until the deformity has progressed to that stage when locomotion has become awkward and irksome, then we have no alternative but to operate and endeavor to replace the femoral neck in as normal position as possible. In the congenital and infantile types it is advisable to have a supporting brace made to envelop the the pelvis and legs taking in the feet, so that the body weight will be taken off the femoral neck and transmitted from the brace to the pelvis; by the use of such a brace, massaging the legs and thighs daily and giving active and passive exercises we may be able to stop the progression of the deformity, and as the bones become denser with age the process will be gradually cured. This procedure is applicable to the adolescent type also if the case is seen early, otherwise as is generally the case, it will be necessary to do an osteotomy of the femur, and put the leg up in plaster of Paris in the desired position. In these cases not in the incipient stage, no matter to what variety they belong, we will have three problems to deal with, namely, to overcome the flexion, adduction and shortening; the flexion and adduction may be overcome by tenotomizing or stretching the contracted muscles under anesthesia, but an osteotomy is the only method we have of correcting the shortening and replacing the femoral neck in a more normal position. Of all the operations advised for this purpose the best are those devised by Whitman and Hoffa. In the Whitman operation an incision is made from the base of the great trochanter downwards about two inches in length, down to the bone, and after the periosteum has been separated, a cuneiform osteotomy of the femur is performed, having a base of an inch to an inch and a half with the apex just at the lesser trochanter. One should endeavor to keep from damaging the periosteum on the internal aspect of the femur, so that when the correction is made the periosteum will act as a hinge; the wound is then closed with two or three sutures, and the leg is abducted as far as possible, by this means the neck of the bone will be fixed by the superior rim of the acetabulum and the inferior portion of the capsule, and the wedge shaped space caused by the osteotomy will be closed.

A plaster cast is applied in this position from the umbilicus to the toes, care being taken to see that the toes point upward; this position is maintained for six weeks; the bandage is then removed and the leg abducted to the line of the body. It will then be seen that the great trochanter is in about its normal position and that the shortening has been somewhat decreased. This operation is to be recommended for bilateral rather than unilateral coxa vara because in the bilateral one does not have to pay special attention to the shortening as both legs will be the same length after this operation. In the unilateral type we must endeavor to obtain as much lengthening as possible and in these cases Hoffa's operation is superior. In the Hoffa method as in the Whitman an incision two inches in length is made from the base of the great trochanter down to the bone; from the end of this incision an oblique sub-trochanteric osteotomy of the femur is performed; the wound is closed and the patient placed upon an extension table so that the leg can be drawn downward and outward; by so doing the fragments slide upon each other and thus lengthening is obtained. The leg is then abducted to 35 or 40 degrees and a plaster cast applied from the umbilicus to the toes, extension being maintained till the cast has hardened. After six weeks the cast is removed and the leg adducted to the line of the body. It will then be seen that the extension pulled the trochanter and neck down into their normal position and that marked lengthening has been obtained. With both operations a light plaster cast should be applied in the normal position after the first cast has been removed; this cast should be worn for a month and then the case given massage and exercises daily. After about six weeks of post-operative treatment the patient will begin to regain the use of the leg and no further trouble need be anticipated. The disadvantage of both these operations is the extremely trying and uncomfortable position in which it is necessary to place the patient, especially in those past middle life, and the only way to avoid this is to so treat fractures of the femoral neck that coxa vara will not result.

The Treatment of Fracture of the Patella, Especially Old Fracture.

By F. W. PARHAM, M. D., New Orleans.

It is not my intention to attempt anything like an exhaustive discussion of the subject of fracture of the patella, but only to touch upon some of the salient points and to report a case showing that lapse of time is no insuperable obstacle to the obtaining of close union and full restoration of function.

It would be mere dogmatism to say that all fractures of the patella should be treated by suture, for good results may be obtained in many by mechanical apparatus. It behooves us, then, at the outset, to inquire how we may know what cases should be treated by apparatus and what by operation. When we bear in mind that the patella is a sesamoid bone developed in the tendon of the quadriceps muscle, we are able to understand that disability will be directly proportional to the damage done to this tendon. Here is, in my opinion, the crux of the whole question. The patella fragments may be widely separated, with comparatively little interference with function, whilst in other cases with little separation there may be great disability.

Not only are we to consider the ligamentum patellæ, that is, the central, or longitudinal, portion, but also its lateral expansions, or "wings" as expressed by the French anatomists. When not only the central ligament or patella suffers a solution of continuity, but these wings also are torn, the disability is great, and in proportion to the lateral damage. Where the damage is great, the interference with function will be marked. The individual will be unable unaided to extend the bent leg and will, consequently be much hampered subsequently in walking. In all such cases, it is difficult to bring the fragments together and this separation will tend to increase with the lapse of time, in spite of all sorts of mechanical treatment. It is plain, then, that cases likely to pursue such a course, should be subjected to operative treatment, for only thus may bony union be accomplished. On the other hand, in cases wherein the injury to the patella is the main or only lesion, the lateral expansion being little or not at all involved, operative intervention will in most cases not be called for because good functional results will be obtainable, indeed,

even bony union in many cases, by simple mechanical treatment. The test should be the amount of separation and the ability of the patient to extend the flexed limb. Our treatment, then, has reference rather to the degree of rupture of the quadriceps tendon than to the patellar injury.

This is the key to the situation:

I shall not discuss the question of mechanical treatment, but confine myself to the operative intervention. Having decided that a particular case should be treated by open suture, what is the method of choice? It would hardly be profitable to discuss here all the methods that have been proposed. No procedure can be considered good which sutures only the patella, and neglects the torn capsule; on the other hand, any method which carefully restores the lacerated capsule, even though it neglects the patella, may be worthy of commendation; but that method after all is best which accurately coaptates both bone and capsular tissues. This may mean direct suture by wire or other material of the bony fragments, the capsular rents being closed by absorbable sutures, or approximation by suture of the soft tissues only. For recent fractures this is the method we recommend, because simplest, easiest, least traumatizing and entirely satisfactory in results.

In old fractures, however, the difficulty of bringing the fragments together is very great and suture of the soft parts is entirely out of the question. Three plans are worthy of consideration: (1) Forcible traction on the upper fragment. (2) Section, more or less extensive of the quadriceps tendon or muscle some distance above the patella. (3) Advancement of the patella tendon attachment by chiseling away of the tibial tubercle and fastening of it at a higher point.

Even in old cases, the first is often feasible, by the method of Lucas-Championniere as modified by Sir Joseph Lister, but this will be much facilitated by more or less cutting of the extensor tendon, especially its lateral extensions. Where there is long existent wide separation, V-shaped section of the tendon, or what is known as the "multiple cone" section and lengthening of the muscle may be necessary. The method by advancement of the patella tendon attachment will rarely come into use, because giving at best only small assistance in approximating widely separated fragments. However, it might be useful in cases, like mine now reported,

where the manipulation of the upper fragments after section of the upper tendon or muscle leaves still some separation between the fragments. I do not agree with Ransohoff that "in old standing cases with very wide diastasis of the fragments, excision of the fragments with suitable tendon plastic will probable give better results than bone suture." I think my case illustrates this.

Miss X., a fashionable dressmaker was seen by me at the New Orleans Sanitarium, referred to me by Dr. Capdau and Dr. Miller. Age about 30 years. Admitted to N. O. Sanitarium March 30, 1908, with the right patella fractured (while alighting from an electric car the evening previous). The left had been broken five years before and had much to do with the present accident. There is fibrous union of at least two inches in this old fracture. She was a short, stout, flabby, inert woman, and has been more inactive on account of the disability caused by the fracture of the left knee-cap. For this reason, although there was not much displacement, the capsule being not much injured, I determined to suture the recent fracture immediately. Operation March 31, 1908. Fragments and gap exposed by a transverse incision. Exposure of fragments showed irregular line of fracture. I approximated by suture of the ligaments and the patella capsule. Closure of wound in two layers. No drainage. Anterior plaster splint and post pasteboard gutter supplemented a few days later by a post-splint of plaster of Paris. Began passive motion at beginning of third week. April 23, 1908, removed splints, made passive motion and left merely a roller bandage on.

April 28, 1908, I operated on the left patella. The operation was extremely fatiguing, requiring all the force and patience at my command. I recognized in advance that the approximation would be particularly difficult, but I was hardly prepared to make the prolonged effort actually required. I was induced to make the attempt, since she was so much incapacitated for her work and this had been the predisposing cause of the accident to the right patella. I exposed the fragments and tried manually to approximate them, with scarcely any gain. I then drilled two holes in each fragment, passed the two ends of a stout silver wire through the two upper from without inward and thence from within outward through the lower, making a mattress suture. Assisted by a large hook over the upper rim of the upper fragment, I made

traction with all the force at my command, the two free ends of the wire being passed under the upper loop of wire. Some distinct gain was made, but the fragments were still wide apart. I then cut laterally the extensor tendon above the patella little by little, continuing the pull on the wire. The upper fragment gradually came down until the posterior edges of the two almost touched. I then took out the single wire loop and substituted two double wires, twisting each couple separately. Having sutured the capsule whenever torn or redundant, I closed the wound with a small drain down to the capsule. This was removed in forty-eight hours. Healing was satisfactory with only a little sloughing of the skin at the line of approximation. She was discharged June 13, 1908, with very good use of both limbs. This improved steadily. A few weeks ago she called to see me and the function of both limbs was practically fully restored. She could put either foot up onto a chair and then lift herself by that foot from the floor—a pretty good test of the restoration of function. The X-ray plates show the wires in position and a much better approximation apparently than on the other side, which was merely sutured with catgut. Another observation worthy of record is that from the time of operation she complained much more of pain in the patella where the lesser traumatism was done and only catgut sutures were used for the approximation. It was very remarkable that after the first week she had comparatively little pain in the patella sutured by wire. No separation can be made out by palpation of either patella, although in the right there is apparent failure of bony continuity. This, I believe, is partly to be explained by the fact that the new bone tissue filling in the gap is less opaque to the Roentgen rays.

DR. E. DENEGRE MARTIN, New Orleans, gave a practical demonstration of an "*Ingenious Fracture Table*," devised by Dr. J. H. Downey, of Gainesville, Fla.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.

DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF JULY 26, 1909.

DISCUSSION OF DR. HUMMEL'S PAPER ON PELLAGRA.

DR. LE BEUF: I would like to know if the pathology of rye bread poisoning, known in France for some years, is not like that of pellagra?

DR. BASS: Sister Stanislaus tells me that a case of a Spanish woman was diagnosed some twenty years ago as pellagra by Dr. Bemiss, then at the Charity Hospital. This disease has therefore been diagnosed here long ago and no one of our set can claim priority in diagnosing the disease here. Two months ago I reported to this Society eleven cases from Mississippi, at which time I had a case here under treatment. I believe this was the first case diagnosed and announced in this city; certainly for many years. Since that time I have had reports of three cases at Cheraw, Miss., and one at Columbia, Miss. The causation of this disease is very interesting, eating diseased corn or maize being generally considered the essential cause. Sir Patrick Manson and others believe that corn is not the cause, but that it is a protozoan disease, like syphilis, scarlet fever, trypanomyiasis, etc. I have tested the serum of four cases of pellagra recently, including the cases reported by Dr. Hummel to-night, and found all to give a positive Wassermann's complement fixation reaction, though the history was negative for syphilis in each case. This would suggest that the disease is of protozoan origin.

DR. VAN WART: Wassermann's reaction depends upon increased globulin in the blood and its capability of fixing liquid bodies. In this reaction sheep corpuscles have been used by some and human by others. The former seems to give better results.

DR. DABNEY: The meal of the West is liable to become mildewed in this moist climate. The boll weevil by compelling Southern states to raise their own corn will furnish fresh meal, and thereby act as a prophylactic in this disease.

DR. HUMMEL (in closing): I am glad to note the interest in the cases reported to-night as manifested by the extensive discussion. In response to Dr. Le Beuf's question as to certain points in the pathology of pellagra, I can only say that there is nothing very characteristic about the lesions observed. It should be remembered that every clinical manifestation of the disease points to its being a more or less prolonged state of intoxication and the tissue changes are what would be expected under those conditions. Atrophy of the muscle coats of the intestines, degeneration of the heart muscles, peculiar pigmentary deposits on the mucous lining of the bowel and on the serous surfaces of the viscera, are some of the findings mentioned. Dr. Bass referred to Dr. Bemiss having recognized a case of pellagra at the hospital years ago. I do not doubt this. When I cited informally a case from my note book and spoke of possible priority in recognizing the disease here, I had reference to the recent local interest in pellagra, which, as you will recall, has only been during the past year. As to the causative agent or agents of this disease, it seems to me that in addition to the specific cause, there must be some contributory condition necessary, such as individual susceptibility, a peculiar temporary systemic state, etc.; otherwise, people subjected to the same food conditions would develop the disease in a more uniform way. I may say that I have seen to date twenty-two cases of pellagra and in no instance am I aware of more than one case developing in the same family. I have often been struck with the similarity between the syndrome of scurvy and pellagra, and this seems, in my mind, to strengthen the assumption that the condition is to some extent a cachexia, contributed to, at least in a measure, by vicious food supply. Pellagra has somewhat aptly been referred to as "poor man's gout."

DEMONSTRATION OF CASES.

DR. VAN WART demonstrated a brain showing a tumor of

the left side of the pons. The patient was a boy nine years of age whose family history except for syphilis in the parents showed nothing of importance. There was nothing in the personal history of any note. The patient was taken sick five weeks before death with weakness of the right foot; two weeks later he came under observation at the out-patient clinic of the Touro Infirmary with weakness of the right leg, right arm, left side of face and difficulty in speaking. There was also a paralysis of the left rectus externus. The patient's condition became slowly worse; aphasia became complete; the paralysis was never complete; there was at all times ability to move the arm and leg to a limited extent. He had never had headache nor vomiting. The eye-grounds were normal. One week before death, lumbar puncture was performed and the presence of globulin in increased quantity demonstrated by the Nissl-Nonne and Noguchi butyric acid tests. The patient died five weeks from the onset with symptoms involving the medulla; the temperature rose rapidly to 110; the pulse to 180, and the respiration to 60. The autopsy revealed a large tumor of the pons, the nature of which has not yet been determined. The paralysis of the left external rectus is easily explained by the pressure of the tumor on the sixth nerve, causing marked atrophy. The case will be reported at length with microscopic examination in a future article.

MEETING OF AUGUST 9, 1909.

DISCUSSION OF DR. WEIL'S PAPER ON VINCENT'S ANGINA.

DR. DUPUY: As far as I know this is the first case of Vincent's Angina with the microscopic proof ever reported before this Society. The Doctor, therefore, deserves to be congratulated on this contribution. It is an important one. Inasmuch as this affection may simulate diphtheria and may be treated as such with no success, it is eminently proper that we stimulate interest in this subject. I believe Dr. Weil is correct in his statement that its rarity is only apparent. We baptize without microscopic evidence many throat affections as membranous pharyngitis and membranous tonsillitis which the micros-

cope might prove to be Vincent's Angina. More extended observations are needed to further enlighten us on the frequency of this disease. A case which I saw in consultation some eight months since was mistaken for diphtheria and serum therapy resorted to without avail. The patient was a white male, aged 42. Slight local reaction and very little constitutional disturbance; temp. 99° - 100° ; some dysphagia; a tough, well-formed, leathery membrane covered a part of the right tonsil and extended along the whole anterior surface of the anterior pillar over the soft palate to the median line. The membrane peeled off readily, leaving a raw bleeding surface. It reformed completely in a few hours after removal. This reformation was the chief feature in the case. Lactic acid 50% applied twice daily seemed to finally check the membrane formation.

EXHIBITION OF CASES.

Dr. Bruns showed two patients; the first an elderly man, who had had a severe form of senile ectropion, had been operated on by the Kuhnt-Szimanowski method, an elaboration of the old Dieffenbach plan. The doctor thought that consideration of the method would convince any one familiar with this class of cases of its superiority and its evident permanence. He had no doubt that for the present it must be considered the operation of election.

The second case was that of a young girl who had had a congenital ptosis of the left upper lid. She had been operated upon, apparently, by the Everbusch method in one of the hospitals of a large Northern city, but with the result of raising the lid only very slightly. The doctor explained that with the exception of the Von Graefe plan of removing a lanceolate portion of skin, subcutaneous connective tissue and muscle from the lid, which was only effective in the very slightest degrees of ptosis, all the operations proposed for the relief of the condition accomplished their end by shortening the tarso-orbital fascia and connecting the lid with the occipito-frontalis. It was evident that the lid could be elevated in this way only by forcible contraction of the frontalis; this produced an ugly grimace. It would also be evident to his hearers that when

the glance was directed far upwards, no further elevation of the lid was possible and that either the eye would be rolled up under the lid or the head must be thrown far back. On the contrary, when we followed the method of Motais, as had been done in the case of this young girl, and grafted a slip taken from the superior rectus, a muscle closely allied to the levator, between the skin and the tarsus, fastening it there by a suture tied over a small roll of gauze on the skin surface; the tension of the superior rectus held the lid well elevated above the pupil, the upper lid was rolled back by the contraction of the muscle and the patient did not have to tilt back her head. He demonstrated this by having the patient look up, when the left lid was seen to rise as well as the right. He believed that all would recognize that the theory of Motais' operation was vastly superior to the idea of making the frontalis take the place of the levator. However, all sorts of objections had been made to the practicability of Motais' plan. The patient before his hearers showed that these objections were not well founded, for after an Everbusch operation had failed, a Motais operation had given her almost perfect restoration of function. His audience would be surprised to learn that though he had written several communications on the superiority of Motais operation, he had been unable to get his confreres of other parts of the country to take any real interest in it. This he believed must be ascribed to the fact that Motais was a Frenchman, not a German.

Dr. Bruns said that he showed these operations because they were fine examples of exact, delicate means to a surgical end; he hoped therefore that they might be interesting even to a general audience; he was human enough, too, to take a pride in them. But especially did he wish to show that Southern ophthalmology was not lagging behind. It had always been his desire to do something to the credit of the South. Any man could do credit to his city and state by doing well whatever his right hand found to do. Since fate had placed him at the head of the Eye Department of the Senses Hospital he was doing his best to conduct it so that it would be a credit to this part of our country.

MEETING OF AUGUST 23, 1909.

DISCUSSION OF DR. ALLEN'S PAPER ON REGIONAL ANESTHESIA.

DR. CRAWFORD: I can heartily endorse Dr. Allen's paper, especially in hernia work. In no field of major surgery does local anesthesia appear so alluring. Not long ago, I had occasion to do an inguinal hernia with cocain. I, very unfortunately for a beginner, had an Italian for a patient, and not having seen him before, could not gain his confidence, an important factor in all this work. He carried on quite a good deal during the procedure, but I was able to finish the operation satisfactorily. Now, in about ten days I opened the scrotum for a hematoma, without any cocain, and he carried on so outlandishly that I was then convinced that the first operation did not hurt him as much as he pretended. In cystoscopic work I use alypin in tablet form, gr. $\frac{1}{8}$. You can very easily deposit them throughout or in any one place, with the Brownson-Lewis depositor. Especially is this applicable when the cystoscope is used, for this instrument is often quite large and pain causes contractions of the bladder. I have now in my ward a case Dr. Allen operated on for hernia; he has a perfect result and his complaint now is an intracapsular fracture of the femur.

Miscellany.

The recent Conference on Leprosy at Bergen, Norway, named a permanent Committee on Research in Leprosy with the following personnel: A. Hansen, Honorary President, and Lie, of Norway; Sederholm, Sweden; Ehlers, Denmark; Brocq and Grall, France; Kohler, Austria; Kirschner and V. Duhring, Germany; Abraham and M. Manis, England; I. Dyer and Wise, United States; Campana, Italy; Falcao, Portugal; Dehio, Russia; Babis, Roumania; Van Campenoat, Belgium; Engel Bey, Egypt; Kasata, Japan.

Communications.

Report of the National Conference on Pellagra.

By H. E. MENAGE, M. D., and C. C. BASS, M. D., New Orleans.

A national conference on pellagra was called by the South Carolina Board of Health and met in Columbia, S. C., Nov. 3 and 4. There was an attendance of between 300 and 400, made up of men interested in the subject of pellagra from the Southern States and a few from the North. The army and United States Public Health and Marine Hospital Service were well represented. Assistant Surgeon General Kerr was present throughout the entire meeting and assured the conference of the hearty support of the United States Public Health Service. The United States Department of Agriculture was also represented. The attendance from Louisiana consisted of Dr. S. D. Porter, State Health Inspector; Dr. J. N. Thomas, Superintendent of the Pineville Insane Asylum, and Drs. H. E. Menage and C. C. Bass, of New Orleans.

The program consisted of forty-two papers, covering every phase of the subject. Six of these papers were from foreign countries, including England, Mexico, Jamaica, Barbados, France and Egypt. Among the foreign contributors were Sandwith, of London, and Marie, of Paris. None of the foreign contributors were present, but their papers were read. All the papers presented will be published in the proceedings at the earliest possible date by the South Carolina Board of Health and a copy will be sent to each physician registered at the conference. It is expected that this publication will be out in four or six weeks; will be the first of its kind and a valuable volume of American literature on this disease.

It would be impossible to give here any adequate account of the papers and discussions, but we hope a brief relation of some of the points brought out on certain phases of the subject will be of interest.

The question of etiology came in for a full share of consideration. Points of evidence and expressions for or against the maize theory came out in many of the papers and discussions.

Sandwith suggested in his paper that spoiled corn may bear some such relation to pellagra as does the mosquito to malaria, that is, no infected corn, no pellagra. He also thinks the penicilium of glaucum the most probable infectious agent. Illustrating his belief in the influence of corn, he recommends strongly withdrawal of all corn products from the diet of pellagrous patients. Dr. Keller, Superintendent of the Peoria Insane Hospital, Illinois, has had 130 cases develop in his institution in three months.

He is unwilling to express an opinion on the maize theory, but one can easily see from his paper and from conversation with him that it is hard for him to accept this theory unreservedly. Placed in his position, most of us would feel as he does. The corn supplied to the entire institution for the past twelve months was investigated by Captain Nichols, of the United States Army. It was the best the market afforded and was inspected twice before it became a part of the hospital dietary. The quantity bought averaged per month per patient 38 ounces or a little more than one ounce a day. This, of course, includes what was wasted as well as what was eaten.

In the paper by Marie, the author says corn is the cause of the disease, and the general trend of his paper shows that he has full confidence in the theory. He says the sun localizes the lesions. He says pellagra is rapidly disappearing from France; also, that in sections of Egypt 35% of the peasants have it.

Dr. Gaumer, of Yucatan, says they had no pellagra until they began to import corn from the United States a few years ago. This would often get damp and mouldy in the hold of the vessel during the long voyage.

A report of the prevalence of much pellagra in Abossia, by Dr. White, where corn bread has never been eaten, is of special interest. The Doctor says it is due there from eating bread made from dura, a grain somewhat resembling sorghum.

Several references and experiences were mentioned during the conference in which pellagrins had been made worse or an exacerbation had been precipitated by eating diseased and sometimes even sound corn.

Dr. Buchanan, of Meridian, Miss., cited a case which was

made worse promptly on two separate occasions by eating good cornbread.

It was pointed out, however, by J. H. Watson and others that the same food may make other diseases worse also.

We believe the resolution adopted by the conference the last afternoon session and after full consideration of the subject voiced the sentiment of practically everybody there. It was about as follows:

“Resolved, That while sound corn is in no way connected with pellagra, the evidence of the relation between spoiled corn and pellagra seems so apparent that we recommend that such measures as are necessary to prevent its use as food be instituted, pending further investigation of the subject.”

Practically no other cause was suggested. The case related by Marie of a child developing the disease though she had never eaten corn, but was the daughter and granddaughter of pellagrins, he considered proof of heredity.

A case was related by C. Toorence in which a woman had all the evidences of pellagra, except the erythema, during pregnancy. She had some burning of the skin also. She was delivered at term of a healthy child. Severe post-partum hemorrhage occurred. No lactation. The symptoms of pellagra have continued and this summer she developed the characteristic skin and nervous manifestations. The child, now one year and seven months old, seems perfectly healthy.

As to the contagiousness of pellagra, little was said, but when mentioned in the papers or discussion it was thought to be non-contagious.

King, of Nashville, related the instance of a Baptist orphanage of 60 or 70 inmates into which was brought a case of pellagra. There had not been any cases there before, either diagnosed or remembered by the physicians or attendants. Since then, only a few months, seventeen other cases have developed in the institution, one after another. Recently the nurse who has attended these pellagrous children has developed the disease.

Captain Nichols, of the Army Service, studied 100 cases in the Peoria Insane Asylum, with reference to intestinal pro-

tozoan infection. He found 85% infected with some form of protozoa and 37% with amebae. A corresponding number of non-pellagrous patients in the same institution showed 48% protozoan infection, with 11% cases with amebae.

It is noteworthy that with this very general protozoan intestinal infection in the Hospital, the Superintendent, Dr. Zeller, says there is no diarrhea or dysentery, except in the pellagrins.

Uncinaria and strongyloides infections were also associated conditions in several of the cases reported from Southern hospitals.

The symptoms and diagnosis of pellagra were pretty well discussed in the papers and discussions. Little new came out. The diagnostic signs were given by Bailey, of South Carolina, in their order of importance, as follows:

1. Diarrhea.
2. Indigestion.
3. Vaginitis.
4. Skin symptoms, characteristic type.
5. No fever, as a rule.
6. Knee jerks exaggerated.
7. Insanity.

The question whether the diagnosis of pellagra can be made without the presence of the skin lesions, was answered by Dr. Babcock, that the London School of Tropical Medicine was teaching a year ago that this is justified in many cases. The skin lesion, being classically located, however, is the only symptom on which a diagnosis can be made without some of the other symptoms being present. It is the association of the several symptoms, on which the diagnosis is usually made. Those showing bleb formation were of the severe type, as found by Stiles at the Peoria Institution, 56% of which died. He found 80% of cases had increased patellar reflex, 85% had diarrhea, 18 of which were of the dysenteric type. Only 2% had palmar surfaces of hands involved in the skin manifestations.

The skin was the only symptom present in a few cases.

There was no constant abnormal blood finding.

Passed Assistant Surgeon C. H. Lavinder contributed a very

valuable paper on the hematology of pellagra. He found only anemia of the secondary type, with a fairly constant increase of the large mononuclear cells. This was borne out by a good many authorities quoted by him.

He also made several blood cultures, with unusually negative results.

Captain Nichols also had made several blood cultures and organ cultures at autopsy, with the same regularly negative results.

King reported Wasserman's serum reaction in three cases, one positive.

Fox reported 29 cases, with Noguchi's modification of the Wasserman reaction, six positive, but weak.

Bass reported complement fixation, with lecithin as antigen, in twelve cases, with eight positive.

The prognosis is indicated by the report of Dr. Zeller, that 20% of all the cases diagnosed in the three months since the disease was first recognized, are already dead. A few cases were reported as apparently cured. Among these was one by Dr. Dyer, of New Orleans, treated with quinin.

Blood transfusion was tried by Cole, of Mobile, with six now living out of nine.

If any drug was commended, it was Fowler's Solution. Those who wrote about or spoke of treatment said to withdraw corn from the diet.

The Conference was permanently organized into the American Congress for the Study of Pellagra. The Charter members will be selected from those in attendance at this conference and its membership limited to scientists and those especially interested in the subject of pellagra.

Dr. J. W. Babcock, who has very properly been called the father of the movement in this country for the study of pellagra, was unanimously elected President.

Dr. White, Superintendent of the Government Insane Hospital at Washington, was elected first Vice-President.

Dr. C. F. Williams, Secretary of the South Carolina State Board of Health, was elected second Vice-President.

Dr. G. A. Zeller, of Peoria, Ill., has earned praise on all sides for his frank and open acknowledgment that since the scales

fell from his eyes he now knows that pellagra has existed in his institution for many years. He recalls deaths from supposed scalds and burns, and even the discharge of attendants for having burned their patients, though they denied it. He was elected Secretary.

The next meeting will be held in June, 1910, at Peoria, Ill.

Credit must be given the South Carolina State Board of Health for having called and so successfully planned and conducted the conference.

A CORRECTION.

New Orleans, Nov. 6, 1909.

Editors N. O. Med & Sur. Journal:

Allow me to correct an article published in the Sept. number of the JOURNAL, page 220, on the third line. In the article the report of the Committee on Medical Education reads: "Medical Department of the University of Tenn., Nashville, Tenn." It should have read, "Medical Department of the University of West Tennessee, Nashville, Tenn. In transcribing the article the word "West" was left out. I wish to make the correction and beg that you will give it all the publicity possible.

Very cordially yours,

LOUIS G. LEBEUF, M. D., Chairman

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Philanthropy and Disease.

The struggles of early schools of medicine single out individual genuises inspired with the will to work for humanity, in spite of public opinion. The church for long was not in line with medical teachings. The survival of the humanitarian instincts in men, however, gradually lifted the earlier schools of medicine out of the plane of public attack. In Rabelais' time some French schools moved from surreptition into royal favor—and thrived. Among some nations the healer has not yet shed the garments of the barber or the apothecary and his place is so inferior that a doctor is barely a grade better than a tradesman.

With the lustre of continued achievements constantly increasing in numerical importance—the medical profession has come to demand a place which rightfully belongs to it and in most countries this has commanded the respect of various kinds of consideration. Formerly the individual worker, with crude means, arrived at his discoveries, with a notice to come afterwards. Now, governments have nationalized discoveries by bestowing honors and emoluments on their agents and by providing all kinds of equipment for further work. We can briefly instance the great scope of the Pasteur movement in France, with divisional laboratories in several large centers of the republic, liberally encouraged by a sufficient endowment provided by the government. Several large cities of Germany have monumental buildings which have grown out of the modest beginnings of Koch and Virchow.

In these United States some cities have public laboratories in which perfunctory work is done by men who have limited means and license to work. No governmental effort has yet evolved which can be even remotely considered consonant with the dignity of this country. Occasional good work comes out of the laboratory of the U. S. P. H. & M. H. S., but it almost always bears the

stigma of restraint and even such censorship at times as to discount the broad nature of its usefulness.

There stand out, however, the great contributions to the cause of health and of preventive medicine, in the philanthropic establishments of the Loomis laboratory, the Rockefeller institute and the Carnegie foundations. In local institutions smaller contributions to the same cause have been made—but these must stand as a rebuke to governmental apathy and as a monument to the citizens who have made the establishments possible.

All over the United States private wealth has contributed to the cause of exterminating the great white plague—the government has been slow to recognize the menace—even.

Now comes a gift of \$1,000,000 from Mr. Rockefeller to combat the hookworm disease, a gift first extolled in daily papers and then help up to ridicule as diverting so large a fund for so unimportant a cause. To Dr. C. W. Stiles belongs the credit of creating the sentiment which has resulted in this gift. His statistics of those sick, dying and dead with hookworm disease are so clearly presented and so easily followed that there is no excuse for an ignorant attack on the merits of the cause by the daily press. If hookworm is a preventable disease and there were a million cases or a hundred cases only, and the mortality in the fearful proportions known to prevail, an endowment of \$50,000 per annum (5% on \$1,000,000) is a small sum with which to work out the salvation of a country population of at least four states.

It does not remove an evil to cover it and it means a few years of education and of endeavor to rid the South of this pest. If the newspapers which Chauvinize the merits of the necessity for hookworm prevention and cure were to devote as much space to educating the country to the ways and means of preventing hookworm they would serve their contingents more righteously.

We need the gifts of philanthropists for this and for like causes in medical research. It is well to see institutions arise for the care of the sick, the crippled, the insane, and the infirm—but it will be better still to prevent these things and it is just such philanthropy directed at the establishment of research laboratories, fieldwork against disease, the education of the profession and the public in preventive medicine and in sanitation that will carry us nearest to right living.

The Pellagra Conference.

We must join in the commendation of Drs. Babcock, Williams and Watson, of South Carolina, for having conceived and carried into execution the National Conference on Pellagra, held at Columbia, in November.

If anything resulted from the gathering, it is certainly clear that an investigation of the disease has become momentous and with relation to its cause and treatment.

The consensus of the meeting pointed to the suspicion of diseased corn, but acknowledged this factor alone as insufficient explanation of the cases observed in the United States, although resolutions urging the proper maturing of grain were adopted.

Altogether the conference was a success—representing many States and several foreign countries—all interested in the humanitarian and economic sides of the question.

The organization of a permanent body to carry on the investigation of the disease makes the final purpose of the meeting assured, and we may hope for a further elucidation of pellagra, at the hands of men interested in its study and willing and able to take up the problem.

In the meantime the profession should not get hysterical on the subject.

Reciprocity in Louisiana.

In the last report of the Secretary of the Council on Medical Education of the American Medical Association, in the paragraph on 'Reciprocity,' favorable mention is made of the Louisiana Board. Attention is called to the fact that it has recently published a list of medical colleges which are considered satisfactory and has barred graduates of all other colleges from registration through reciprocity. As is further stated in this report, such procedure by medical examining boards makes reciprocity in their hands a powerful influence for higher standards.

Our Board has given serious consideration to the problem of reciprocity, which is a complex one. They seem to have solved it satisfactorily for the present, and we congratulate them upon the fact that their plan is commended in many quarters.

The Southern Medical Association.

The New Orleans meeting of the Southern Medical Association was a success. There were nearly two hundred members registered and though this number was smaller than was expected, the enthusiasm and the academic spirit of the meeting more than compensated.

The medical profession in the six States comprising this Association is not yet entirely concerted in the estimate of the true purpose or value of such a body; the Association itself is not yet crystalized into a methodic purpose and the original plan of organization is yet subject to revision.

We feel entitled as a representative organ of Southern medical expression to have and utter some views on these points.

The plan of organization devised by the A. M. A. has generally been accepted. It is, however, still on trial, and from more than one section of the country there is criticism, if not discontent. The individual is entirely submerged in the plan as it is operating. Latterly a strong argumentative appeal has been made by at least one member of the A. M. A. against the evils of a centralization which places the power of organization in the hands of a few ready and eager to perpetuate that authority. A revision of the regime is in sight, and a more democratic system must result; bureaucracy in medical organization can not serve the profession best and experience will show this.

The medical profession in this country has advanced its interests wonderfully in the past twenty years, and no one thing has helped more than the systematic plans of the A. M. A., but no plans are perfect and criticism, if honest, can only help in the grand result.

The speculative scheme of organization advanced by the retiring President of the Southern Medical Association can, therefore, hardly be entertained as entirely satisfying the demands of all the contingents of the Southern profession. To graft this body on the A. M. A. as a satellite, adding another burden to the individual member who must take one more intermediate degree to qualify for the national body, cannot appeal to most men who practice medicine in the South. More than this, that plan of organization will more than anything else defeat the spirit of an

independent body planned to work out its own ideals, purposes and opportunities.

The Southern Medical Association has a distinct future, if it identifies interests with the people it represents and if it stands for the encouragement of research, standards, and the education of its own members. As a subsidiary of the A. M. A. it will only become a supernumerary body, or in vernacular idiom, a fifth wheel to a cart, and no *raison d'être* will make an increased membership either likely or desirable.

Abstracts, Extracts and Miscellany.

Department of Surgery.

In Charge of DR. FELIX A. LARUE and DR. P. A. THIBAUT, New Orleans.

SPINAL ANALGESIA UNDER NOVOCAIN.—Mr. Chaput (*Revue de Chirurgie*, August, 1909,) reports that he has used with excellent results over a hundred times for spinal analgesia, novocain, which is less toxic than either cocain or stovain. Four per cent solutions were used without adrenalin. He had only five anesthetic failures, owing to insufficient doses.

The following doses were employed: 5 centigrams (4-5 grains) for anal operations; 6 centigrams (1 grain) for operations on the upper extremity; 7 centigrams (1¼ grain) for laparotomies.

The physiological action of the drug resembles that of stovain, but vomiting, pallor and slowness of the pulse are much less frequent. No muscular paralysis was noted.

Novocain is in reality absolutely harmless if the doses mentioned above are adhered to. No contraindications exist, and it can be used in all patients, irrespective of ages and conditions.

LARUE.

CONSERVATIVE OPERATION FOR MALIGNANT OSTEO-SARCOMA.—Mr. Gangolphe (in *Revue de Chirurgie*, August, 1909,) reports to the Societe de Chirurgie of Lyons the case of a young girl, aged 27 years, on whom, four and a half years ago, he performed a diaphyso-epiphiseal resection of the inferior portion of the

fibula. Pain, especially nocturnal, was the incipient symptom, causing loss of sleep. Motion of the limb was preserved. There was no fever nor lymphatic involvement. The fibula was tumefied; the X-rays revealed a clear central cavity.

An exploratory osteotomy was followed by a resection of the entire affected zone.

Histologically it proved to be a very malignant growth. There has been no recurrence.

Gangolphe then discusses the action of the fibula in sustentation and osteoplasty. He recalls that, according to Molin and Vienney, the fibula can bear a weight of 60 kilogrammes (approximately 27½ lbs). The tibia in his case was reinforced by a lateral rod.

In osteoplasty, he advises taking the bone graft from the opposite tibia, and not from the diseased side, so as not to weaken too much, if unsuccessful, the skeleton of that limb. LARUE.

TWO CASES OF ACUTE HEMORRHAGIC PANCREATITIS WITH STEATONECROSIS.—Leriche and Arnaud (*Revue de Chirurgie*, August, 1909) report two such cases, as yet little known in France.

The first case, a German, aet. 39 years, was seized with violent epigastric pains, vomited once, nausea, one diarrhetic stool; the temperature rose to 39.5 centigrade (102 Fahr.), pulse 120, tympanism, and dullness in the flanks.

Peritonitis from perforation was suspected and intervention within 48 hours from onset.

A large quantity of bloody serum was found in the abdomen, steatonecrotic patches on the omentum, mesentery and fatty capsule of the kidney. Death in a few hours. The autopsy revealed a huge dark pancreas, like a true diffuse hematoma.

The second case is clinically analagous. The operation done 24 hours after the first symptom, showed a similar effusion in the peritoneum and whitish spots on the omentum; the pancreas is hemorrhagic. Death followed 48 hours after, with hematemesis.

Leriche insists on the cause of these cases of pancreatitis, generally due to cholelithiasis with or without calculus imbedded in the ampulla of Vater. LARUE.

Department of Internal Medicine.

In Charge of E. M. DUPAQUIER, New Orleans.

PERNICIOUS ANEMIA.—We must read with a grain of salt the reports of cases of pernicious anemia, as a specific, hemolytic, infective disease (Hunter's pernicious anemia), in which the severe secondary anemias from repeated hemorrhages, intestinal parasites, malaria, microbial infection, tuberculosis, syphilis, cancer, auto-intoxication from gastro-intestinal troubles, nephritis, frequent pregnancies and lead poisoning, have not been carefully excluded, and in which all the features, course and lesions of pernicious anemia have not been distinctly presented.

To rely on the examination of the blood, only, is wrong; for, the blood picture is alike in all severe anemias. The presence of megaloblasts, of poikilocytosis, and of a high hemoglobin index with a very low red count, are features not confined to pernicious anemia.

To rely on the lemon-tinted skin is wrong, for, hemolysis occurs in other anemias. (*Medical Annual*, 1909,—Pernicious Anemia, Emanuel and Mackey).—E. M. D.

AUTOPSY.—It is regrettable that none of these present, at the autopsy of the case of cholecystitis and pneumonia, reported in the October issue of the *JOURNAL*, has thought of examining the suprarenal capsules. The word capsule mentioned in the report refers to the capsule or hull investing the kidney. But, reference, here, is made to the suprarenal capsules, the adrenals, of which no mention, at all, is made, in the report.

In the light of modern pathology, the condition of the adrenals in infectious diseases is most important, for, when they are damaged or involved in the infectious process, it means suprarenal insufficiency, bringing about a well-known syndrome (Sergent et Bernard), explaining rapid and sudden death. The syndrome set is composed of abdominal and lumbar pains, anorexia, vomiting, profuse diarrhea, prostration, smallness of pulse, collapsus, or excitement with delirium.

Note that the case referred to presented a pretty good clinical picture of the syndrome.

It is current practice in France to administer adrenalin in the

treatment of infectious diseases and to do so systematically in all cases of diphtheria, in particular, with a view of obviating the consequences of a lack of adrenal secretion. A good mark for practical opotherapy. Think of it. (*Gazette des Hôpitaux-Médecine Pratique*, Sept. 14, '09. *L'insuffisance surrenale dans les maladies infectieuses*.)

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

THE EMPLOYMENT OF EXTRACT OF CANNABIS INDICA IN EXOPHTHALMIC GOITRE. Crämer reports upon the effect of what he calls "Extractum cannabis indicæ butyricum" in the treatment of exophthalmic goitre. He calls attention to the fact that in his experience it is one of the best remedies in this obstinate malady, and points out that before the International Medical Congress of 1890, Sée recommended this drug in functional disorders of the heart and stomach, such examples as cardialgia and pyloric spasm. Crämer states that he has treated 34 cases by this method, and that he would in all cases resort to its internal use before proceeding to more radical measures.—*Klinische Therapeutische Wochenschrift*.—J. A. S.

THE EFFECT OF CERTAIN SO-CALLED MILK MODIFIERS ON THE GASTRIC DIGESTION OF INFANTS. In the *American Journal of the Medical Sciences* for June, 1909, Clarke as a result of his researches, gives the following summary:

1. The motility of the infant stomach varies inversely to the concentration of the food. The more dilute the food the more frequently may the feeding be given.

2. Lime water does not reduce the acidity of the gastric contents, the neutralizing of a portion of the acid being overcome by an increased stimulation of hydrochloric acid by the gastric glands. This may even increase the amount of acid available for digestion.

3. Sodium citrate acts on the acid in the stomach converting it into sodium chloride and thus markedly reduces the "available hydrochloric acid."

4. Barley water seems to have no constant effect upon the chemistry of gastric digestion in the infant.

5. The type of infants who vomit persistently may be divided into two classes, hypoacidity and hyperacidity.

6. Test feeding should be given to this type of infants to determine to which class they belong.

7. A five per cent. milk and sugar solution seems to be the most satisfactory feeding to determine fine differences in the contents. This may be followed by a mixture of milk one part, water two parts, to determine to what extent the gastric glands are capable of responding to stimuli. For the lactose solution thirty minutes is the most satisfactory time to allow the feeding to remain in the stomach; for the milk mixture sixty minutes.

8. On purely theoretical grounds it would appear that when the acidity is low, either small doses of alkalies or of hydrochloric acid are indicated while in hyperacidity sodium citrate holds out the best hope of benefit.

9. Protein digestion in the infant's stomach is slight and is proportional to the amount of hydrochloric acid in the organ.

J. A. S.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

CHECKING THE SECRETION OF THE LACTATING BREAST. H. J. Storrs (*Surgery, Gynecology and Obstetrics*) states that since 1904 the following method has been employed as a routine in the obstetrical department of Johns Hopkins Hospital whenever it was desired to dry up the breasts.

When the child is born dead, or suckling contraindicated for any reason, the breasts are left absolutely alone for the days immediately following labor. Ordinarily they become considerably engorged during the third day and occasionally quite painful; the patient is told, however, that the pain and swelling will promptly disappear and that no treatment is necessary. Within the course of 24 or 36 hours the swelling begins to subside, after which the secretion gradually decreases in amount to disappear entirely before the end of the week. When the breasts are large and pendulous a loosely fitting bandage is applied to keep them from sagging, but not to exert pressure, and probably once in 20 cases a

simple hypodermic of morphin or codeia may be necessary to relieve pain during the active engorgement. During the past four years the breast pump, belladonna plasters and tight breast bandages have been entirely abandoned. The mammary secretions disappears more rapidly and with far less discomfort to the patients than by any of the other methods.

MILLER.

THE LENGTH OF TIME PATIENTS SHOULD REMAIN IN BED AFTER ABDOMINAL OPERATIONS.—The *Revue de Gynecologie* contains a report of the discussion of this subject before the Societe de Chirurgie de Paris. Faure, for the past two years, had allowed his cases to get up on the twelfth day and his appendectomies operated on in the cold stage on the eighth or tenth day.

His results showed that the general health of his patients was improved, that the convalescence was shorter, the operative complications, particularly lung involvements, were less frequent and less grave, that the wounds were more solid and phlebitis and embolism were less frequent. He hopes that this method would soon be adopted by all of his colleagues for the welfare of the patients and hospital service.

M. Segond believed there was real danger in urging such methods in all the hospital services and thought the accidents would be more than had been observed so far.

M. Moty shared the views of M. Faure. He thought early rising indispensable for aged people in order to avoid pulmonary congestion.

MILLER.

Department of Ear, Nose and Throat.

In Charge of A. W. DEROALDES, M. D., and GORDON KING, M. D., New Orleans.

BISMUTH PASTE IN THE TREATMENT OF SUPPURATIONS OF THE EAR, NOSE AND THROAT.—Doctor Beek, of Chicago, is the advocate of this new preparation as a therapeutic agent of value in certain inflammatory affections of the special organs and as a post operative dressing.

The preparation as employed by Beek contains 30% bismuth subnitrate in form of an ointment, the basis of which is vaselin

or a combination of vaselin and paraffin. Parke, Davis & Co. have recently sent out for experimental purposes a similar preparation containing the subcarbonate of bismuth in about the same strength.

Beck claims to have obtained very encouraging and even surprising results in the treatment of atrophic rhinitis, chronic suppurations of the ear, and as a dressing after turbinectomy, frontal sinus and mastoid operations.—*Journal of the A. M. A.*, Jan. 9, 1909.

TONSILLAR HEMORRHAGE AND ITS SURGICAL TREATMENT.—Chevalier Jackson in the *Annals of Surgery*, Dec., 1907, published a most valuable article under this title which at this time, nearly two years later, will meet with more interest and general approval than at the time of its publication, owing to the fact that the subject of Tonsillectomy versus Tonsillotomy has been the cause of unending discussion and literature in this special branch of surgery for the past two years.

Jackson does not consider tonsillotomy justifiable under any circumstances, and further states that hemorrhage is less troublesome after a complete removal of the tonsil than when only a part is excised. His conclusions are as follows:

Tonsillotomy is an unjustifiable operation. Tonsillectomy is less likely to be followed by hemorrhage than is tonsillotomy. Oozing after tonsillectomy is exceedingly rare. It is bleeding from a vessel concealed back of the anterior pillar that is usually mistaken for oozing. The use of ice to the neck and face, or locally over the wound and other hemostatics, are unsurgical and are liable to be followed by secondary hemorrhage.

A gauze sponge pushed into the cavity left by the removal of the tonsil will stop slight bleeding, but should never be used when the bleeding is from a vessel large enough to be twisted. If there is not a sufficient cavity to permit the retention of a gauze sponge the size of a walnut by the anterior and posterior pillars, the tonsil is not all out, and the operation is not complete.

Hemostatis with hemostats, promptly done while the vessels are plainly visible by their bleeding immediately after they are severed, promptly arrests hemorrhage and forestalls secondary hemorrhage.

Any hemorrhage not controllable by torsion can be and should

be immediately stopped by rendering the whole area anemic by ligation of the external carotid. An anterior pillar retractor and a few long hemostats are an absolute essential to every tonsillectomy armamentarium.

TREATMENT OF ACUTE RHINITIS.—Schmidt, of Munich, recommends as an infallible cure for acute cold in the head, if used in the early stage, an emulsion composed of formalin and oil of eucalyptus. The author claims that the emulsion made by the ordinary method is too unstable to be satisfactory and advocates a special preparation, the formula of which he fails to give. A few drops of this mixture are put on a handkerchief and the fumes inhaled by the patient. The effect on the cold is claimed to be particularly prompt and curative.—*Munchener Med. Wochenschrift*, Dec. 29, 1908.

Medical News Items.

MORTALITY STATISTICS NEXT YEAR.—United States Census Director E. Dana Durond, has promulgated new rules and instructions for the purpose of securing more complete and accurate transcripts of deaths occurring in the selected death registration states and cities of the United States. This action is expected to result in the presentation of the most scientific and trustworthy statistics ever compiled in connection with a decennial United States census, which affords the population basis for the 1910 death rates.

The Director suggests that a city registrar should have in his hands the certificate of every death that occurs, with absolutely no exception, before any disposition is made of the body; hence there should be no occasion for certificates filed many days after the close of each month or year. The corrections should be obtained before the burial or removal permit is issued. No imperfect certificates or unsatisfactory statements of cause of death should be accepted. When overlooked, however, they may be corrected readily by special blank or telephone, and city returns should therefore be superior in quality and completeness.

In conclusion the Director states that with the cordial co-operation of State and city registration officials the value of the mortality statistics of the United States will be greatly improved.

“PEDIATRICS” CHANGES HANDS.—Dr. W. E. Fitch has pur-

chased *Pediatrics* and will henceforth edit this well-known publication. Dr. Fitch has long been connected with medical journalism as editor of Gaillard's *Southern Medicine*. The new editor contemplates many changes in *Pediatrics* and with a staff of collaborators which includes many of the country's foremost pediatricists.

CLINICAL LECTURES ON DISEASES OF THE SKIN.—The New York Skin and Cancer Hospital announces that Dr. L. Duncan Bulkley will give a series of clinical lectures on diseases of the skin in the out-patient hall of the hospital on Wednesday afternoons at 4:15 o'clock. This course will be free to the medical profession.

THE FIRST AMERICAN HOSPITAL.—Jas. J. Walsh, of New York, states that the first hospital ever built in America was erected by the Spaniard, Cortez, in the City of Mexico, in 1824. It was endowed out of revenue obtained from the properties conferred on him by the Spanish Crown for his services in the conquest of Mexico. The endowment was so arranged that it still exists, and is paid to a supervisor named by the present lineal descendant of Cortez.

TRANSPORTATION OF LEPEERS.—According to an amendment issued by the Public Health and Marine Hospital Service, lepers may be accepted for transportation under proper supervision when en route to seaport of deportation, also for transportation to a designated place for care and treatment, with the necessary consent of the proper health authorities, provided proper sanitary regulations are enforced with regard to the leper en route to destination.

FIRST CONVICTION UNDER PURE FOOD LAW.—The first conviction under the Pure Food Law was against M. Rosamano, secretary-treasurer of the Louisiana Bottling Works, of Algiers. Mr. Rosamano put saccharin in different concoctions put up by that concern.

INFANT MORTALITY.—The American Association for the Study and Prevention of Infant Mortality was organized on Nov. 14. The president is Dr. J. H. Mason Knox, Jr., of John's Hopkins Medical School.

STREET SWEEPERS IN NEW YORK CITY.—The men who sweep the streets in New York City wear a mask to cover the mouth and nostrils. It is a gauze-like cover and very light. The New Orleans sweepers would appreciate this practice, as they are subjected to the annoyance of dry sweeping in the daytime.

MEDICAL OFFICER COMMANDS SHIP.—Secretary Meyer, of the Navy Department, settled the controversy as to whether a line officer or a medical officer should be placed in command of the hospital ship Solace, by appointing Surgeon Geo. Pickrell, of the Medical Corps, to command the vessel.

PHILADELPHIA CHOSEN FOR THE NEXT PHI BETA PI CONVENTION.—The next meeting of the Phi Beta Pi Medical Fraternity will meet in Philadelphia. The recent meeting in New Orleans was largely attended and much enjoyed by those present.

MISSISSIPPI BOARD OF MEDICAL EXAMINERS.—At the last meeting of the Mississippi Board of Medical Examiners there were 80 applicants and 27 passed; of 16 negroes none passed.

LOUISIANA STATE BOARD OF PHARMACY.—The Louisiana State Board of Pharmacy held examinations Nov. 5 and 6, and only 6 passed.

WOMEN DOCTORS IN ENGLAND.—There is much joy in the ranks of the women doctors and students in England at the decision of the Royal College of Surgeons to open its doors to women. The Royal College of Physicians recently came to a similar decision, and before long, when the necessary regulations have been made, it will be open to women to take degrees of "M. R. C. S." and "L. R. C. P.," while they will also be able to attain the high degree of fellow.

PERSONALS.—Dr. Tom. A. Williams, of Washington, D. C., has recently returned from Europe and has removed to No. 1758 K street, of that city. Dr. Williams has been elected associate member of the *Societe de Medicine Mentale Clinique de France* and also a corresponding member of the *Societe de Neurologie de Paris*.

Dr. A. W. DeRoaldes has returned from a six months' trip to Europe.

Dr. Herman B. Gessner has been commissioned by the President a First Lieutenant in the Medical Reserve Corps, United States Army.

Dr. Joseph Weis has returned from Europe.

Drs. E. Harper and J. T. Crebbin have returned from Hot Springs, where they attended the Southern Homeopathic Association meeting. Dr. Crebbin was elected president.

Dr. Wm. B. Hall, of Sewanee, Tenn., was in the city recently.

Dr. J. R. Ducote has located at Cottonport, La.

Dr. G. E. Berch has located at Lucy, La.

Dr. J. T. O. Farwell, of Richmond, Tex., has been recently appointed on the Texas State Board of Health.

Dr. Sidney D. Porter and Dr. J. A. Estopinal have been giving lectures before teachers' associations in the State.

Dr. Chas. M. Fauntleroy, assistant surgeon at the Louisiana Quarantine Station, has been assigned to duty as quarantine officer at Savannah.

Assistant Surgeon R. H. Lyon has succeeded Dr. Chas. M. Fauntleroy as assistant at the Louisiana Station.

CLIPPINGS.—For financial reasons the *American Journal of Orthopedic Surgery* will be unable to continue.

D. Appleton & Co. announce a new medical and surgical unabridged dictionary just issued.

Announcement has been received of the opening of the private sanatorium of Drs. Davis and Fischer, Atlanta, Ga.

Dr. H. A. Moody is now identified with the *Gulf States Medical Journal*.

The Board of Education of the city of Birmingham has recently established the office of medical director of schools.

REMOVALS.—Dr. Warren S. Bickham has removed from New Orleans to New York.

Dr. Jas. J. Robert has removed from Norwood, La., to Baton Rouge.

Dr. A. M. Peters, from Winnfield, La., to Fort Worth, Tex.

Dr. E. Ehlert, from New Orleans to Port Allen, La.

Dr. O. C. Teagle, from Clarence, La., to Winnfield, .

Dr. I. M. George, from Jonesboro, La., to Eldorado, Ark.

Dr. E. E. Jordon, from Robeline, La., to Bon Ami.

Dr. J. L. Kelly, from Rochell, La., to Colfax.

MARRIED.—On Wednesday, October 27, 1909, Dr. Leo. Chas. Dempsey to Helen Eva Kavanagh.

DIED.—On Oct. 26, 1909, at Cottonport, La., Dr. C. J. Ducoté. Dr. Ducoté was prominent in his profession and was at one time president of the State Medical Society.

On Nov. 4, 1909, at Vicksburg, Miss., Dr. Samuel Davis Robbins, one of the best known physicians and surgeons in the State.

On Nov. 5, 1909, Dr. L. M. Quin, at McComb City, Miss.

In New York, on Nov. 12, 1909, Dr. Harriette C. Keatings. Dr. Keatings was a pioneer woman doctor of the Gulf States and at one time settled in New Orleans.

On Nov. 13, 1909, in Austin, Tex., Dr. J. W. McLaughlin, one of the most prominent physicians of the South.

On Nov. 20, 1909, Dr. Raymond Sauvage, a native of New Orleans.

TULANE NOTES.

The attendance in the Medical Department is smaller for the current session owing to the enforcement of new requirements for entrance and advancement. The total number of matriculates is 426.

One woman has been admitted to the laboratories of the Medical Department as a partial student. Although considerable newspaper discussion has taken place with regard to the admission of women to Tulane, no provision has been made for the admission of women as candidates for the medical degree or in the regular courses.

Tulane Medical Department has made application for membership in the American Medical College Association.

Dr. George S. Bel has been elected Professor of Clinical Medicine, a deserved recognition of his many years of service in the institution.

Many additions have been made to the library in the Hutchinson Memorial, which is not only open to all members of the medical profession, but these are invited to make use of the facilities afforded.

Among the interesting features at the recent meeting of the Southern Medical Association were the exhibits in the laboratories of bacteriology and clinical medicine, besides the surgical exhibit provided numerous specimens and lantern slide features.

The University of Chicago offers four scholarships for the session of 1910-11 to be awarded to applicants presenting the best theses showing independent investigation in physics, chemistry or in the biological sciences. Three of these scholarships are offered to under-graduate students of the Senior Class, which provide for one prize of free tuition for three quarters in the University of Chicago; one prize for two quarters and one prize for one quarter.

To graduate students a prize of three quarters free tuition is

offered for a similar thesis presented by a graduate student. This competition is open not only to students of the University of Chicago but to students of Tulane as well. Theses must be sent to the Dean of Medical Courses, University of Chicago, on or before April 1, 1910. More detailed information may be secured by addressing the Dean at the University of Chicago.

THE SOUTHERN MEDICAL ASSOCIATION.

The New Orleans meeting was characterized by the presence of leading men in the South who contributed both to the program and to the discussions. The registration totalled 193.

The three sections of medicine, surgery and ophthalmology met at the Hutchinson Memorial and the Polyclinic Buildings of the Tulane Medical Department, while the pellagra session was held at the Richardson Chemistry building, on the Tulane campus. Entertainments were afforded by the Orleans Parish Medical Society, at a smoker; the Touro Infirmary staff, at a luncheon; and by the two Tulane Medical Faculties at a luncheon on the last day of the meeting.

The Association was called to order at 10 a. m. November 9 by the president, Dr. Giles C. Savage. Bishop David Sessums invoked Divine blessings. The address of welcome was delivered by Hon. Garland Dupré, as the official representative of the Mayor of New Orleans. Dr. W. W. Crawford, of Hattiesburg, responded to the address of welcome. Dr. E. M. Hummel, Chairman of the Committee of arrangements, submitted the official program with announcements of entertainments.

The several sections were well attended, but after the first day the central interest was in the section on medicine.

The main feature of the addresses of chairmen of sections may be characterized as economic, as in each the skeleton of argument was made for proletarian interests. Dr. A. W. Stirling, in the Section of Ophthalmology, urged the education of the laity in medical matters as a protection against charlatanry; he argued the advisability of state laws requiring opticians to be licensed.

Dr. F. G. DuBose, Chairman of the Section on Surgery, urged high standards in all schools and medical colleges of the South.

Dr. John A. Witherspoon, Chairman of the Section on Medicine, most eloquently paid a tribute to the recent philanthropic contri-

butions to humanitarian medicine provided for the purposes of studying hookworm diseases, pellagra and tropical medicine. He commented on the advances in medical education in the South, but urged the co-operation of the medical profession in demanding higher standards at the hands of State Boards of Examiners. He urged the general adoption of the plan now practised in Louisiana of having the state medical associations to name representatives of the profession from whom the legislatures or governors of the states should select members of examining boards.

Much of the first day was spent in organizing the sections, but quite a few interesting papers were presented.

The second day practically centered in interest at the general session on pellagra, although in the morning session the discussions of tuberculosis resulted in valuable contributions.

The pellagra session brought out differences of opinion regarding the source and origin of pellagra, but was particularly valuable in the relation of the symptomatology.

Papers were contributed by Drs. Bass, Dillon, Dock and Pothier, of New Orleans; by Dr. Buchanan, of Meridian, Miss.; Dr. James M. King, of Nashville. A paper on "Transfusion in Pellagra" was read for Drs. Cole and Winthrop, of Mobile.

Dr. King's paper presented interesting points in a contention for the contagiousness of the disease. No additional light seemed to have been thrown on the treatment of the disease, a large percentage of the cases reported having succumbed.

A high degree of interest and attention was elicited in the remarks of Dr. W. J. Kerr, of Corsicana, Texas, who was surgeon of the Andersonville prison in 1864. In addition to the relation of a number of personal reminiscences he stated that the recent literature on pellagra had impressed on him the belief that many of the deaths at this prison had been occasioned by this disease.

At the last session on November 11 the officers for the coming year were elected as follows: President, Dr. W. W. Crawford, Hattiesburg, Miss.; vice presidents, Dr. J. McKinstry, Fla.; Dr. W. S. Leathers, Miss.; Dr. J. R. Snyder, Ala.; Dr. H. L. Harris, Ga.; Dr. George Dock, La.; Dr. Frank A. Jones, Tenn.; secretary-treasurer, Dr. Oscar Dowling, La.; chairman entertainment, Dr. G. C. Savage, Nashville, Tenn.; chairmen of sections: Medicine, Dr. George Dock, of New Orleans, with Dr. H. Eugene Mitchell, of Birmingham, secretary; surgery, Dr. E. Denegre Martin, of New

Orleans, with Dr. Jere L. Crook, of Jackson, Tenn., secretary; Ophthalmology, Dr. E. C. Ellett, of Memphis, with Dr. U. S. Bird, of Tampa, secretary.

The next meeting place will be Nashville and the date the second Tuesday in November.

Numerous resolutions were passed at various times, the most important of which follow:

By Dr. E. Denegre Martin, New Orleans: "In a speech made in Augusta, Ga., last Monday, the 8th. instant, President Taft said that he would recommend to Congress a 'union of all the experimental departments of the government for the discovery of lines of health and the study of disease.' He further stated that this would in no way interfere with state health organizations, but would in every way prove beneficial just as the department of agriculture has in improving stock and the condition of the planter."

Be it therefore resolved that it is the sense of the Association that we hereby indorse the recommendation and will co-operate in any movement tending to the establishment of such a health organization.

By the Councilors, with Drs. J. T. Halsey, Seale Harris and R. M. Cunningham: Whereas, the gift of one million dollars by Mr. Rockefeller for the eradication of the hookworm in the United States affects chiefly the states south of the Potomac and Ohio rivers, and

Whereas, the crusade against Uncinariasis will save many lives and will make stronger and healthier the inhabitants in certain rural districts of the component States of this Association, therefore

Be it resolved, That the Southern Medical Association, in convention assembled in New Orleans, Louisiana, on November 11, 1909, expresses its approval of the hookworm crusade, and its conviction that this campaign by means of this endowment and the co-operation of the medical profession will quickly accomplish inestimable results.

Resolved, Second, That this Association expresses its gratitude to Mr. Rockefeller for his philanthropy.

Resolved, Third, That copies of these resolutions be furnished the press.

By Dr. J. T. Halsey. New Orleans:

Resolved, that the Southern Medical Association, at this time, when the hookworm problem is shortly to be so vigorously attacked, expresses its recognition of the great services rendered in this matter by Dr. C. W. Stiles, of the Marine Hospital Service, by his discovery of the *Uncinaria Americana*, and by Major B. K. Ashford, of the Army Medical Corps, and his associates in their active and successful work against the hookworm in Porto Rico.

By Dr. J. H. White, New Orleans:

Whereas, the Southern Medical Association has learned at its meeting held in New Orleans on November 9, 10, 11, 1909, that donations of a million dollars each have been made by Mrs. Russell Sage for the eradication of tuberculosis, and by Mr. Andrew Carnegie, and whereas such donations will, in the opinion of this Association, be of inestimable benefit to every section of our common country from Maine to California and from Minnesota to Louisiana,

Resolved, That the Southern Medical Association express its appreciation of these great beneficiaries and tender its thanks to both Mrs. Sage and Mr. Carnegie.

Resolved, further, That a copy of these resolutions be sent to Mrs. Sage and Mr. Carnegie and formulated to the press.

By Dr. Fred J. Mayer, of Louisiana:

Resolved, That this Association indorses the following principles of the Louisiana system of hygienic education, to-wit:

First—That the highest duty of the physician is prevention.

Second—That the masses should be instructed in the cause, nature and prevention of contagious and infectious diseases in man and the domestic animals and the relation of insects thereto.

Third—That it is the highest duty of the State to furnish this instruction on both humanitarian and economic grounds.

Fourth—That there should be co-operation and co-ordination of all educational factors in the State, especially the clergy, with the medical profession, in lifting the reproach of sanitary ignorance, which stands as an inhibitor to the fullest development of the unrivaled resources of the South.

Further resolved, That the States represented in this Association are urged to take legislative action in perfecting their systems of gathering and recording vital statistics along the uniform lines of the bill recommended by the National Census Bureau.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

The Medical Record Visiting List. Wm. Wood & Co., New York, 1910.

This Visiting List is one of the best and most compact ever issued. It is published either for sixty patients or thirty patients a week, and with or without dates. The front part of it contains much valuable information in relation to doses of medicines, solutions for injections, atomizations and inhalations, emergencies, disinfections and various tables. In addition to the visiting list pages there are also pages for various engagements, records and addresses. These lists may be obtained in fancy binding or wallets at increased prices.

The Physician's Visiting List. P. Blakiston's Son & Co., 1910.

The fifty-ninth year of this standard publication finds it, as usual, published in the regular or weekly edition, the monthly edition and the perpetual edition. It furnishes a vast amount of information contained in various tables, and, in addition to the Visiting List proper, there are the usual pages for engagements, addresses and a cash account.

Principles of Pharmacy, by HENRY V. ARNY, Ph. G., Ph. D. W. B. Saunders Company, Philadelphia and London, 1909.

It is with pleasure that we review this excellent work by our friend and former fellow-townsmen, genial Vin Arny. To the student of pharmacy we can say never was there a more conscientious and enthusiastic teacher. All that modern pharmacy has that is worth while, from a practical point of view, has found a place between the covers of this volume.

Clear, concise and essentially scientific, this work will ere long find its place in the working library of every true pharmacist.

It is our experience that the majority of physicians are insufficiently grounded in this essential branch of medicine; and, in our opinion, no better medium in the form of a book could be found than Arny's work. To the beginner in medicine and pharmacy this work will prove invaluable.

The work is divided into seven parts.

Part I, pharmaceutical operations, opens with an interesting chapter on pharmacopias, that portion dealing with the United States pharmacopeia being of most consequence.

Chapter II deals with Galenic pharmaceutical preparations.

III, with Specific Gravity; IV, Heat; V, Application of Heat; VI, Comminution; VII, Solution; VIII, Classification; IX, Precipitation, etc.; X, Extraction.

Part II, Galvanic Pharmaceutical Preparations, receives treatment in eleven chapters. Other subjects are treated of in the following order:

Part III. Inorganic Chemistry.

Part IV. Organic Chemistry.

Part V. Pharmaceutic Testing.

Part VI. The Prescription.

A careful study of the last-named section would prove beneficial to all physicians and pharmacists.

Part VII deals with Laboratory Exercises, and completes the book.

In concluding our review, we are impelled to say: "Well done, Army!"

STORCK.

The Open-Air Treatment of Pulmonary Tuberculosis, by E. W. BURTON-FANNING, M. D., Second edition. Paul B. Hoeber, New York City, 1909.

How slow the medical profession is to adopt new but rational plans of treatment is well illustrated in the open-air treatment of tuberculosis. For, "It is true that, in 1840, Dr. G. Bodington, of Sutton Coldfield, in Warwickshire, published his views as to the correct treatment of consumption, and that his system closely foreshadowed that now in vogue. He sought to convince his medical brethren that a life spent in the open air, with a liberal supply of substantial nourishment and the avoidance of excitement, acted beneficially in consumption."

As to home or sanatorium treatment, the author writes :

"The physician is not warranted in sending the patients from home unless there is good reason to anticipate that he is susceptible to material benefit. If the case is one of very acute illness, it is always proper to wait some time before taking the step of removing away from his relatives the invalid who will possibly die. Let such a patient simply be put to bed and given all the air, food and nursing that can be procured at home, and let the effect of these measures be watched. If no impression whatever is made on the height of fever, or the severity of the symptoms, by a few weeks of such tentative treatment, it is not likely that full sanatorium treatment will answer."

The author emphasizes the point that when the disease does not preclude the patient's removal from home, that it is desirable that the patient be sent to a proper sanatorium. If, after remaining several months, it be found impossible to continue in the sanatorium, the patient will be the gainer, as this preliminary training will be of great benefit in helping him to carry out his treatment at home.

The author says: "That the treatment can be perfectly well carried out at home, I am satisfied. We have abundance of living testimony in proof of the fact."

STORCK.

Tuberculosis a Preventable and Curable Disease, by S. ADOLPHUS KNOPF, M. D. Moffat, Yard & Co., New York, 1909.

This book, written by an enthusiast, is the best of its kind with which we are acquainted in the English language.

The physician will find in this book an excellent medium of acquainting his intelligent tuberculosis patient with reliable information bearing on the great white plague. To all who endeavor to help the tuberculous subject it will be found to offer information which will prove of valuable assistance in the cure and alleviation of this most destructive of diseases.

To the city fathers, legislators and statesmen, this work points the way for them to exercise their high offices in the checking and the abolition of tuberculosis.

"In short, it is hoped that the knowledge which this book is intended to impart will help to solve the tuberculosis problem, and bring us nearer to the time when the great white plague shall be forever eradicated from our midst."

STORCK.

Disorders of Metabolism and Nutrition. Part VIII. Gout. By PROF. DR. H. STRAUSS. E. B. Treat & Co., New York, 1909.

The careful student will not find anything new in these pages; but, as a review to those who have not been fortunate enough to have kept abreast of the work done in this field during the past five years, this resumé will be of some value. The question whether it is uric acid or its compounds which are actually present in the blood of gouty subjects is still unanswered.

The author properly says, in speaking of the cause of uric acid in the blood of gouty patients, it "does not, at the present time, lend itself to a general reply, and it can only be said that the attack of gout is occasioned by the coöperation of two factors—one known and the other unknown. The known factor is supplied by the increase of uric acid in the blood serum and in the fluids; this increase may be the result of various causes, the most frequent of which is probably renal.

The second, or unknown factor, X, causes the production of a substance which will precipitate the increased uric acid at certain places, (cartilages, tendon sheaths, connective tissue, etc.). The presence of both factors is necessary for the occurrence of an attack of gout."

As for the therapy of gout, nothing new is brought forward. Colchicum and the salicylate preparations remain, as ever, the principal drug treatment in gout.

STORCK.

Naval Hygiene, by JAMES DUNCAN GATEWOOD, M. D., Instructor in Hygiene, United States Naval Medical School, etc. P. Blakiston's Son & Co., Philadelphia.

While this work must be of chief value to the medical division of the navy, it cannot fail to interest the profession as a whole, especially as it presents an original study of an important topic.

Not only has the author carefully studied the existing conditions, but he has as well projected his long experience as a guide to those in the field.

The material in the book is presented with much logical sequence, and every phase of living on a ship is considered, from light and air to food and disinfection. Altogether a comprehensive reference work on the subject.

DYER.

Children in Health and Disease, A Study of Child-Life, by DAVID FORSYTH, M. D., D. Dc. P. Blakiston's Son & Co., Philadelphia.

The argument in the book is philosophic—based on the idea that the view of a child well or sick must be broad enough to consider antecedent and present history. While comparatively little of the long catalog of the ills of children is discussed, the scope of the work offers most judicious indications for the care of children sick and well. Unusual care has been exercised in presenting the hygienic side—considering in this the education of the child and the environment while being educated, at home or at school. In no sense a text on diseases of children, this work should be read by every physician inclined to follow the profound conclusions of a writer who has reflected much on his subject.

DYER.

Manual of Therapeutics. Parke, Davis & Co., Detroit.

This handy little volume carries a succinct list of drugs, with their indications and qualities. In addition, some common diseases are given, with treatment outlined. Besides this are a number of tables of various useful information related to the general subject-matter of the book.

Publications Received.

SOUTHERN MEDICAL PUBLISHING COMPANY, Baltimore, 1909.

The Diseases of Children, by Henry Enos Tuley, M. D.

D. APPLETON & CO., New York and London, 1909.

Renal Ureteral, Perirenal and Adrenal Tumors, and Actinomycosis and Echinococcus of the Kidney, by Edgar Garceau, M. D.

The Diagnosis of Internal Medicine, by Glentworth Reeve, Butler, M. D., Sc. D., LL. D. Third Revised Edition.

REBMAN COMPANY, New York, 1909.

Practical Points in the Use of the X-Ray and High Frequency Currents, by Aspinwall Judd, M. D.

P. BLAKISTON'S SON & CO. Philadelphia, 1909.

Therapeutics, Materia Medica and Pharmacy, Including the Special Therapeutics of Diseases and Symptoms, The Physiological and Therapeutical Actions of Drugs, The Modern Materia Medica, Official and Practical Pharmacy, Minute Directions for Prescription Writing, Also the Antidotal and Antagonistic Treatment of Poisoning, by Samuel O. L. Potter, A. M., M. D., M. R. C. P. Second Revised and Enlarged Edition.

J. B. LIPPINCOTT COMPANY, Philadelphia and London.

Those Nerves, by George Lincoln Walton, M. D.

LEE & FEBIGER, Philadelphia and New York, 1909.

Modern Medicine—Its Theory and Practice, edited by William Osler, M. D., assisted by Thomas McCrea, M. D. Vol. VI. *Diseases of the Urinary System—Diseases of the Ductless Glands—Diseases of the Obscure Causation—Diseases of the Muscles—Vasomotor and Trophic Disorders in Life Insurance.*

WILLIAM WOOD & CO., New York, 1909.

Diseases of Children, by Henry Dwight Chapin, A. M., M. D., and Godfrey Roger Pisek, M. D.

H. K. LEWIS, London, 1909.

Otitic Cerebellar Abscess, by Heinrich Newmann; translated by Richard Lake, F. R. C. S.

The Causation of Sex: A New Theory of Sex Based on Clinical Materials, Together With Chapters on the Forecasting of the Sex of the Unborn Child, and on the Determination or Production of Sex at Will, by E. Rumley Dawson, L. R. C. P., M. R. C. S.

MISCELLANEOUS.

Transactions of the American Otological Society. Forty-second Annual Meeting. Vol. II., Part II.

A New Method of Intestinal Anastomosis; A New Instrument for Direct Transfusion of Blood and Temporary Anastomosis of the Blood Vessels; Ether Anesthesia by Compressed Air, by A. L. Soresi, M. D. XVI. International Medical Congress, Budapest. Sec. VII: Surgery.

Mortality Statistics for 1908. Bulletin 104. Department of Commerce and Labor, Bureau of Census. (Washington Government Printing Office.)

Report of the Board of Administrators of the Charity Hospital, to the General Assembly of the State of Louisiana for 1908. (A. W. Hyatt Stationery Manufacturing Company, New Orleans, 1909.)

Studies Upon Leprosy. Treasury Department, P. H. and M. H. S. of the United States. (Washington Government Printing Office.)

Reprints.

How to Abort Acute Gonorrhea, by W. L. Champion, M. D.

Tincture of White Soap, by F. P. Dunnington.

Newer Conceptions of Cardiac Arrhythmias and Their Treatment, by Thos. E. Satterthwaite, M. D.

Tonsil Removal, Opsonic Index, and Immunity, by Bryan D. Sheedy, M. D.

Report of Surgical Operations at the Briggs Infirmary During Its Eighteenth Season, by W. T. Briggs, M. D.

The Rational System of Medical Education Will Furnish Physicians Adequate for the Entire Field of Medical Practice; Simple Refraction for Family Physicians, by Leartus Connor, A. B., M. D.

The Enzyme Treatment for Cancer, by William Seaman Bainbridge, A. M., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans
FOR OCTOBER, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	8	1	9
Intermittent Fever (Malarial Cachexia)	1	3	4
Smallpox.....			
Measles			
Scarlet Fever.....			
Whooping Cough.....			
Diphtheria and Croup.....	1	1	2
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia	2	2	4
Tuberculosis.....	35	30	65
Cancer.....	20	3	23
Rheumatism and Gout		2	2
Diabetes	4		4
Alcoholism	2		2
Encephalitis and Meningitis.....	4	1	5
Locomotor Ataxia.....	1	2	3
Congestion, Hemorrhage and Softening of Brain.....	15	4	19
Paralysis	1		1
Convulsions of Infants	3	1	4
Other Diseases of Infancy	16	7	23
Tetanus.....	1		1
Other Nervous Diseases	2	1	3
Heart Diseases.....	49	34	83
Bronchitis	7	1	8
Pneumonia and Broncho-Pneumonia.....	19	19	38
Other Respiratory Diseases.....	6	2	8
Ulcer of Stomach.....			
Other Diseases of the Stomach	6	7	13
Diarrhea, Dysentery and Enteritis.....	12	10	22
Hernia, Intestinal Obstruction.....	1	3	4
Cirrhosis of Liver.....	2	7	9
Other Diseases of the Liver			
Simple Peritonitis	2		2
Appendicitis.....	2		2
Bright's Disease	36	29	65
Other Genito-Urinary Diseases.....	5	2	7
Puerperal Diseases	8	4	12
Senile Debility.....	9	9	18
Suicide	3		3
Injuries.....	24	17	41
All Other Causes.....	13	11	24
TOTAL.....	320	213	533

Still-born Children—White, 26; colored, 29; total, 55.

Population of City (estimated)—White, 265,000; colored, 97,000; total, 362,000.

Death Rate per 1000 per annum for Month—White, 14.49; colored, 26.35; total, 17.65.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.10
Mean temperature 72.00
Total precipitation 3.63 inches.
Prevailing direction of wind, east.

New Orleans Medical and Surgical Journal.

VOL. LXII.

JANUARY, 1910.

No. 7

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

"A Common Disease Which We See and Treat Daily."

By JAMES J. ROBERT, B. S., M. D., Baton Rouge, La.

Responding to your request for a paper on "Some Common Disease Which We See and Treat Every Day," I take the liberty of changing the subject to "A Common Disease Which We See and Treat Daily," and I shall endeavor to bring out some points of real practical value in dealing with our omnipresent enemy, "Malaria"—a disease whose ravages date back many centuries, one of the earlier recorded foci being the Pontine Marshes about Rome.

The term "Malaria"—meaning literally "bad air"—was originally used to designate the supposedly specific cause of the disease which it now designates, viz., an acute or chronic infectious disease due to the entrance into, and proliferation in, the body, of the *Plasmodium Malariae*—characterized anatomically by changes in the blood, spleen and liver—characterized clinically by periodic

* Read before East Feliciana Parish Medical Society, August 4th, 1909.

febrile attacks of at least four distinct varieties—according to the type of infection present.

ETIOLOGY: As above stated, the disease is due primarily to the presence in the blood of a distinct organism which finds its way there (perhaps solely) through the equally essential medium of the female mosquito of the genus *Anopheles*, this mosquito acting not only as a means for injecting this organism into man, but also as a host for the development of this organism.

CYCLE IN THE FEMALE: She fills herself with the blood of an infected individual getting male and female elements, flies away to dark sheltered place near stagnant water, deposits her eggs on water about six days later, usually dying beside her eggs, the larvæ finally hatching and feeding upon her body and so becoming infected. However, she may live on to infect another person some ten days later by injecting her infected salivary juice. Incubation in the mosquito being about ten days and being about the same in man, we see that an initial case requires approximately three weeks to give rise to any secondary cases, though this rule is capable of the widest variations. From the foregoing statements we recognize two absolutely essential and mutually dependent etiological factors, viz., the *Plasmodium Malariae* and the *Anopheles* mosquito.

As secondary causes, are to be mentioned simply such conditions of lowered vitality on the part of the individual as would render him an easy prey to disease in general, and such unsanitary conditions as would promote the propagation of the *Anopheles* mosquito.

PATHOLOGICAL ANATOMY: The most striking morbid condition here presented is the blood picture, which shows not only the presence of the *Plasmodium Malariae* but shows also diminished and altered hæmoglobin, diminished red blood cells, and diminished leucocytes. Specimen taken during or just after paroxysm shows *Plasmodium* in process of segmentation, while specimen taken later shows hyaline forms. If the infection persists, the spleen soon becomes swollen and engorged, and the liver frequently shows the same changes.

VARIETIES: Not less than four distinct varieties of malaria are recognized, viz.:

- | | | |
|--------------------------------|---|------------------|
| 1) Intermittent Malarial Fever | { | Quartan |
| | | Tertian |
| 2) Remittent Malarial Fever | { | Algid type |
| 3) Pernicious Malarial Fever | | Comatose type |
| 4) Chronic Malarial Fever | | Hemorrhagic type |
- (Malarial Cachexia)

SYMPTOMS:

(1) INTERMITTENT MALARIAL FEVER: Two types of intermittent malarial fever are recognized, according to the type of the infecting organism, viz., Quartan, in which paroxysms occur on first and fourth day; and Tertian, in which paroxysms occur on first and third day, etc. Double or triple infection may of course lead to more frequent paroxysms giving rise to various combinations. In each of these types the paroxysm is essentially the same, its entire duration being eight to twelve hours and usually beginning in the morning.

PRODROMAL SYMPTOMS: The symptoms usually appearing are—headache, languor, pain in the limbs, yawning, gastric discomfort, and often nausea and vomit. I have noted frequently a severe diarrhea as the first, and for some hours the only evidence of any illness whatever. The paroxysm proper now begins with a more or less severe

CHILL. The skin is cold and pallid, though the face is cyanotic, pulse rapid and of high tension, and, although patient shakes with cold, a thermometer placed in the mouth or rectum shows a rapid rise of temperature to 103° to 105° F. Rarely the chill may be omitted and in children a convulsion may replace it. The chill is promptly followed by

FEVER. Pulse is full and bounding, skin very hot and reddened, face flushed, severe throbbing headache appears, and patient is very restless—perhaps even delirious. In a few hours the temperature falls by crisis and the

SWEATING stage begins; patient sweats more or less profusely from head to foot, headache usually disappears, and he is soon very comfortable—perhaps enjoying a refreshing sleep.

(2) REMITTENT MALARIAL FEVER: This fever is caused by the estivo-autumnal parasite. The paroxysms are really of an *intermittent quotidian* (daily) periodicity but their long and increasing duration (20 hours or more) and their tendency to antic-

ipate each other soon make them entirely overlap the afebrile interval; hence the *remittent* type of fever results.

PRODROMAL symptoms may appear just as in the intermittent type.

CHILL usually occurs but is not so severe as in intermittent type.

FEVER appears more gradually and with the first few paroxysms may not run very high. Fever usually remits with a

SWEAT early on the morning of the second day to be followed in a few hours by another paroxysm. In a few days the fever becomes continuous with acute exacerbations marking the periodic intervals; pulse is full and bounding, tongue furred, and slight jaundice often appears. Other digestive symptoms are very frequent, such as nausea, vomiting, diarrhea and abdominal tenderness. I have noticed this especially in some recent cases, in which vomiting was very obstinate. Bronchial symptoms also are very common—especially this season—and only recently I have had a case in which the low muttering Typhoid delirium was beautifully simulated, but in which I was able to make a positive diagnosis of malaria and to exclude any typhoidal element. This fever not infrequently lasts seven, fourteen, twenty-one or even twenty-eight or more days and may terminate in the pernicious form of malaria.

(3) **PERNICIOUS MALARIAL FEVER:** Fortunately this type of malarial fever is rare with us. Like the remittent fever just described, it is caused by the estivo-autumnal parasite and it presents three distinct forms, the symptoms in each case being due to a *profound toxemia* and more or less concentration of the infection in the organs chiefly involved (alimentary canal in the algid form, brain in the comatose form, etc.)

ALGID FORM (congestive chill): This form is characterized by severe gastro-intestinal disturbances. Sudden vomiting, soon followed by profuse diarrhea with great prostration; chill or chilly sensations; normal or even sub-normal temperature; and diminished or suppressed urine constitute the clinical picture. The patient becomes rapidly exhausted and after a few days—interrupted with slight rises in temperature—frequently succumbs to the grim monster.

COMATOSE FORM (cerebral type)—characterized by profound cerebral disturbances. This form begins suddenly with or without a chill and soon shows a very high fever, even hyperpyrexia and the

cerebral symptoms take the form either of an active delirium or (more frequently) a rapidly developing coma. The patient may perish in the initial attack or may rally and regain consciousness, to succumb in a few hours to a fatal relapse or to go on to a complete recovery.

HEMORRHAGIC FORM ("black water" fever)—characterized by tendency to hemorrhage, especially from the kidneys (hence, the above name) and mucous membranes. There is usually an initial chill followed by high fever—often delirium. Urine frequently shows casts in addition to the vascular elements, viz., hemoglobin alone (hemoglobinuria) or red blood cells also (hematuria). In some cases there may be complete anuria and uremia may occur.

(4) **CHRONIC MALARIAL FEVER** (Malarial Cachexia). This develops usually in consequence of repeated acute malarial attacks, the result of re-infection or lack of proper energetic treatment of the original infection, though it sometimes appears in persons living in malarious districts who have never had a malarial paroxysm. The cardinal symptoms are profound anemia (red cells often sinking to 1,000,000 per c. m. m.), enlargement and firmness of the spleen, and often enlargement of the liver also. Patient is thin, skin shows a muddy color if not a deep jaundice and there is languor and general depression. Urine frequently shows biliary pigments (Test—1 to 8 alcoholic *dilution* of Tr. Iodin etc.). Tongue is broad, flat and furred; breath is foul; digestion poor; circulation weak. Various secondary symptoms occur in consequence of the anemia, viz., vertigo, palpitation, headache, dyspnea, and edema of the ankles and feet. Temperature ranges usually from 99° to 102° or 103° F., though it may be subnormal.

COMPLICATIONS OF MALARIAL FEVER: A fair per cent of cases show some complications, the most frequent being gastro-enteritis, nephritis, and jaundice. This statement will not be found to accord with statistics compiled by Anders, Butler, French and other Northern writers, as it is based on my own experience in this section and in Texas. In fact, as applies to these sections, I think the total percentage of cases showing any complications whatever is somewhat overestimated by these authors.

DIAGNOSIS: The only positive proof of the existence of malaria in a given case lies in the discovery in the blood of the Plasmodium

Malariae, though owing to the fact that quinin is a specific remedy, a therapeutic diagnosis is frequently of value. Examination of the blood may be made at any time but the parasites are most abundant in the peripheral circulation from eight to twelve hours before or after the chill; though if we wish to see the segmentation in process, the specimen should be taken during or immediately after the chill. Having made a thin blood smear on an object slide, we may examine it without staining or we may first stain it. This latter method is especially desirable if examination can not be made immediately. Various stains are in use but from my own experience I much prefer Wright's stain (or rather his modification of Jenna's stain) as it is quick, easy to apply, requires no fixation, and gives the red blood cells a clear pink color and the parasites a distinct blue. But since the use of the microscope is by no means general, it is well to bear in mind a few febrile conditions which may so closely simulate some type of malaria as to lead to error in a too hasty diagnosis. A few differentiating features will therefore be pointed out which should aid in avoiding confusion with the following diseases:

Pyemia, septicemia, and concealed suppurating conditions; chills, fever, and sweats occur at irregular intervals and quinin does not affect their re-currence; blood examination shows marked leucocytosis but no plasmodia; a suppurating focus will also likely give localized symptoms leading to its discovery.

ACUTE PULMONARY TUBERCULOSIS: Physical signs of tuberculosis; tubercle bacilli in sputum, absence of plasmodium from the blood, no leucocytosis, failure of quinin to control febrile movement.

PYELITIS: Lumbar pain and tenderness, leucocytosis, absence of plasmodium, pus in the urine, irregular febrile movement which fails to respond to quinin.

TYPHOID FEVER (Diagnose from remittent malarial fever): Rose spots, abdominal symptoms, Widal reaction, absence of plasmodium, failure of quinin to control febrile movement, tongue.

YELLOW FEVER (Diagnose from pernicious malarial fever): Jaundice appears earlier, albuminuria more pronounced, gastric hemorrhage (black vomit) as a rule, rather than renal hemorrhage (black water), absence of plasmodium and failure of quinin to control fever. Tongue dry and pointed. *N. B.* In the absence

of an epidemic of yellow fever or a clearly traceable path of infection the inability to demonstrate immediately the estivo-autumnal parasite in the blood should scarcely warrant one in pronouncing a case *yellow fever*, at once; though it would warrant a careful isolation of the patient in his room.

CHOLERA—absence of epidemic, absence of plasmodium from blood, presence of spirillum in the faeces.

PROGNOSIS: INTERMITTENT FEVER—favorable with proper energetic treatment. Remittent Fever—usually favorable with proper treatment though death may result from exhaustion or other cause. *Pernicious Malaria*—mortality ranges about 25 per cent *Malarial Cachexia*—Change of climate and judicious treatment give good results.

PROPHYLAXIS: Until recent years a discussion of this important subject simply expressed our ignorance rather than our knowledge of it, but to-day we are able to handle it successfully by accomplishing three measures, viz.:

(1) Destruction of the *Anopheles* mosquito by fumigation, by putting oil over their breeding places and by good sanitation in general—good air, pure water, and perfect drainage.

(2) Prevention of entrance of plasmodium into the body; i. e., use screens to avoid bites of such mosquitoes as are not destroyed, and at the same time isolate, by screening, such cases of malaria as already exist, to prevent the *mosquitoes* from becoming infected.

(3) Fortification of the body against development of any parasites that may gain access thereto. Thus far serum immunity has been sought in vain, our chief defense consisting in proper hygiene and sanitation and the systematic use of quinin or arsenic (Fowler's solution, best preparation) or both.

TREATMENT: Quinin is a specific for the disease if given in proper doses and at intervals appropriate to the form of the disease to be treated. We should bear in mind our treatment of this disease that we are applying a *direct poison to a living organism* just as we apply an *antiseptic* in any *process of disinfection*. A one per cent solution of carbolic acid is required to destroy most of the pyogenic cocci; likewise a certain amount of quinin incorporated in the body as a solution in the blood is required to destroy the malarial plasmodium.

N. B. $\frac{1}{13}$ of body weight represents blood. Therefore a man

weighing 156 pounds represents 12 pounds of blood or (5760x12), 69,120 grains of blood in which

5 grs.	of quinin	dissolved	gives	a 1 to	14,000	solution	approximately.
10 grs.	"	"	"	a 1 to	7,000	"	"
15 grs.	"	"	"	a 1 to	4,500	"	"
20 grs.	"	"	"	a 1 to	3,500	"	"
30 grs.	"	"	"	a 1 to	2,300	"	"
40 grs.	"	"	"	a 1 to	1,750	"	"
60 grs.	"	"	"	a 1 to	1,150	"	"

Comparing with other antiseptics note strength in which they are effective—e. g., Bi-chlorid 1:20,000 kills practically all pathogenic germs and 1:10,000 kills their spores. Permanganate of potash 1:6000 to 1:1000. Phenol 1:1000 to 1:100. Formalin 1:2000 to 1:500.

Time element also favors quinin for by keeping the system thoroughly cinchonised we can have the constant action of the quinin for a long time.

Now it is known positively that the young parasites are set free in the blood at the time of the chill, and in case the chill is omitted we can estimate this time as about two hours before the maximum temperature is reached. Furthermore, we know that quinin yields its maximum effect about four hours after its administration. Now, just "put two and two together" and we know when to give the quinin, viz., four hours before the expected chill or six hours before expected time of maximum temperature.

(1) INTERMITTENT MALARIAL FEVER: In this type of fever eight or ten grains of quinin sulphate given in capsule four hours before the expected chill and preceded by nearly or quite the same dose three or four hours before (to insure prompt and thorough cinchonism) is usually sufficient. This amount can be readily put into a No. 00 capsule if sufficient pressure is used. A grain of calomel added to each of these capsules on the first day is valuable—it enhances the effect of the quinin, perhaps by aiding elimination and in turn promoting absorption of quinin.

Following this, the patient should take 7 and one-half grs. of quinin with one-fourth gr. of calomel, at 5 and 8 o'clock every morning, for at least three days, after which the dose of quinin may be reduced to 5 grs. until the seventh day of his illness when he should again take the full quantity. This is usually sufficient,

though in some cases it is well to repeat the quinin on the 13th, 14th, 19th, 20th, and 21st days.

Treatment of the paroxysm is purely symptomatic—rest in bed, hot drinks (chloroform), and external heat during the chill, cooling drinks, cool sponging, and cold to the head during the fever, frequently drying with a warm towel during the sweating stage. During the fever I find the following combination very valuable in robust individuals for quieting the nervous system, relieving headache, and counteracting the unpleasant symptoms of cinchonism, as well as promoting free diaphoresis and reducing the fever, viz., Acetanilid grs. iiiss, Caffein Citrate gr. ss, Sodium Bicarb. gr. i. This can be given in a single tablet and the dose repeated in a few hours *if indicated*. After the paroxysm the patient should remain quiet and his diet should be nutritious and easily digested. With children, pregnant women, and people showing an idiosyncrasy for quinin, I have gotten good results from the use of quinidin given either in a powder or in simple syrup.

Occasionally, however, cases will be met which fail absolutely to respond to the above treatment, but where the diagnosis is positive I attribute this simply to failure of the quinin to be properly assimilated. To overcome this obstacle I resort promptly to a solution of which I use one tablespoonful at a dose—this dose representing Quinin Sulphate grs. X, Aromatic Sulphuric Acid m XX to XXX, Tincture of Opium m XV—XXV, and enough *filtered saturated* solution of Magnesium Sulphate to make out the dose. This dose is given in water at the same hours the capsules had been given and, in the words of an old darky, "It's a nasty dose but it usually fetches the case." The opium aids in overcoming the headache and the unpleasant symptoms of cinchonism and also promotes through diaphoresis; the magnesium sulphate overcomes the constipating effect of the opium and secures good elimination by the bowel, while the acid serves to render the quinin soluble and quickly assimilable.

Fortunately we rarely meet a case of malaria which withstands the use of quinin in solution but sometimes we do and here we are forced to resort to hypodermic medication. However, I have never used this method except as a last resort, for quinin administered this way, even under the strictest aseptic precautions, is a direct irritant to the tissues and frequently causes ugly ab-

scesses. Many writers advise giving the injections deep in the gluteal muscles but for various reasons I prefer the arm. For hypodermic use I prefer the bi-muriate of quinin in seven and one-half ($7\frac{1}{2}$) to ten (10) gr. doses, though the bi-sulphate, salicylate, and hydrobromate and other salts have found favor with many. (Reasons for preferring bi-muriate—large percentage of alkaloid, ready solubility, least irritating).

Recently I have bought some of Parke, Davis & Co's. hypodermic tablets of Quinin and Urea Hydrochlorid but I am glad to say that I have not had occasion to try them yet. The use of quinin should be continued for at least seven days after the fever is broken and in persons of low vitality who have been sick for any length of time the following tonic will be found an admirable supplement to the treatment, viz.,

Citrate of Iron and Quinin, grs. iii-v,

Solution of Potassium Arsenite (Fowler's), m i-ii,

Tincture Nux Vomica, m x-xx,

Water (q. s.) to make out a dram dose.

It is well to prescribe not less than six ounces of this mixture so that the patient may use it at least two weeks, taking it in water after each meal. Gastro-intestinal or other complications also demand appropriate symptomatic treatment as indicated by the individual cases.

(2) REMITTENT MALARIAL FEVER: Here the treatment is essentially the same as with the intermittent type though the quinin must be given more persistently and, in case the paroxysm is not well enough marked to determine positively the time for its administration, it should be given continuously in smaller doses—say 5 grains, and at shorter intervals, say every 4 hours.

The results in this form of malaria are by no means so positive or so quick as in the intermittent type and the quinin must be given for a longer time even if we see no immediate effects from it. Just recently I had a case in which 30 grains of quinin daily apparently failed to yield any response for nearly a week (temperature ranging from 102 F. at 6 a. m. to 104 and three-fifths at 3 p. m.), but persistent use of the drug rendered the patient absolutely free of fever by the end of the week. In this form of malaria we are more apt than in the intermittent type to have to resort to the administration of quinin in solution either orally

or hypodermically. Cold bathing at regular intervals throughout the course of the disease is frequently of value as symptomatic treatment but it can not be credited with any curative powers.

A tonic similar to that mentioned above is a valuable adjunct to the treatment of the convalescent stage.

(3) **PERNICIOUS MALARIAL FEVER:** Algid type (Congestive Chill: Quinin should be administered hypodermically at once in dose of ten (10) grains, and this dose should be repeated as indicated though the subsequent doses can often be given in solution by mouth. Symptomatic treatment is urgently indicated: *hypodermically*, stimulants; *externally* friction, heat, mustard bath, mustard plaster, hot blankets; also, an enema of warm saline solution is often of value. Severe nausea often demands morphine though it is frequently controlled by various other remedies, e. g., a mixture containing in each dose Menthol gr. j, Chloroform m V-X, Cocaine gr. $\frac{1}{16}$ - $\frac{1}{8}$, given well stirred in water or sweet milk and repeated as indicated. For profuse diarrhea small doses of calomel and ipecac followed up by a combination of powdered opium with bismuth subnitrate or subcarbonate will often suffice. Squibb's diarrhea mixture often answers the purpose well, and by directing the mixture to be well shaken and stirred just before it is taken, several grains of bismuth subcarbonate may be given with each dose. Quinin in full doses should, of course, be continued throughout the course of the disease and for several days thereafter.

COMATOSE TYPE (Cerebral Type): Quinin (not less than ten grs.) should be given by the needle immediately and repeated as indicated. Morphine or Chloral, separately or combined with each other or with Bromide, will best serve to overcome excessive nervous symptoms. Cold bath, ice cap, and cold enema should be used freely during height of fever. Gastro-intestinal symptoms should be met as described above in treatment of algid type. If patient rallies, liquid nourishment should be given and quinin should be pushed energetically with a view to preventing a relapse.

HEMORRHAGIC TYPE: Fortunately there is a tendency to spontaneous recovery from the hemorrhagic diathesis and this is perhaps aided by ergot. Large quantities of water should be drunk to keep kidneys well flushed and guard against suppression of urine and toxemia. Turpentine may be theoretically contraindicated

(as an irritant to an inflamed genito-urinary tract) but I have used it successfully on more than one occasion in combination with Balsam Capaiba, Spirit of Nitrous Ether, and Compound Tincture of Lavender. The question of the use of quinin is to be settled by the symptoms of the individual case rather than by any fixed rule, and it often represents a choice between two evils. If quinin has *not* been given and the blood shows parasites, then quinin will likely control both the hemorrhage and the fever. On the contrary, if quinin *has* been used in large doses and parasites are present then a diminished dose of quinin will likely control both the hemorrhage and the fever; though in many cases, especially if there is any tendency to anuria, the quinin must be entirely withdrawn for at least a few days. In such cases the malaria must be combatted by change of climate, better hygiene, etc. During the hemorrhagic attack respiratory and cardiac stimulants must be used as indicated.

(4) CHRONIC MALARIA (Malarial Cachexia): The treatment of this type of the disease may be summarized as follows:

Climatic—Removal to a high non-malarial district;

Hygienic—Best possible sanitation as regards drainage, fresh air, baths, etc.;

Dietetic—An abundance of nutritious, easily digested food;

Medicinal—Specific and tonic; the specific treatment implies the use at regular intervals (as indicated by the individual cases) of quinin in sufficient dose to produce distinct cinchonism, while the tonic treatment consists in free use of quinin, iron, strychnin, and arsenic in tonic doses, and, if the patient's stomach will tolerate it, cod liver oil should also be employed. The importance of *energetic* and protracted use of this treatment can not be too strongly emphasized.

Random Medical Notes in Europe.*

By GEORGE DOCK, M. D., New Orleans.

The thing that most impresses the traveler in Europe on his first visit is usually the finish of construction that he sees on all sides. Streets, bridges, private houses and public buildings, have a solidity that strikes one as intended for ages. When he returns after a few years to the same places, however, the traveler is even more struck

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by the changes that have taken place. This is particularly true of Germany, where the growth of cities in the last 25 years has been so great. Private houses, single and apartment, are larger, more ornate, more modern. One may not always admire the taste, but one cannot deny the decorative, even monumental, effect. New city halls, new post offices, new schools and museums appear with bewildering frequency. Old and dingy quarters are torn down and replaced by handsome blocks and parks. A whole quarter may even have its topography changed to satisfy the demand for light, air or rapid transit. We can recall with patriotic pride magnificent structures in our own country—the mammoth hotels, buildings like the libraries of Washington or Boston, the museums of New York, Boston, Philadelphia and Pittsburg, the Harvard Medical School, the Mt. Sinai Hospital and the Union Station in Washington. We may think with satisfaction that when Berlin wanted a modern public school building it took the design of one in Denver. After all, we see that even in so-called effete civilizations change and progress occur, and that no nation can be a laggard if it wishes to retain its relative rank, not to speak of forging ahead. Medical institutions are included in the category of changing conditions in Europe. New hospitals are built, old ones torn down, or enlarged and improved. New laboratories spring up. And in all these is a largeness of plan, a solidity of construction, an architectural beauty, that make them monumental. The interior has a completeness of detail and a perfection of fittings that make for the care of the sick, the work in the laboratories, the comfort and convenience of all those who are connected with the institution. I am not considering the work done. In many ways that does not agree with our ideas, I am now speaking only of construction. Costly equipment seems easier to get than it does here. So in the installation of Roentgen laboratories, the utilization of baths, of aerotherapy, mechanotherapy, sun light, etc., etc. New and expensive apparatus like the electro-cardiograph seem to be readily procured. Projection lanterns of the latest pattern can be seen in every lecture room and clinical amphitheater.

These things are no doubt part of the general advance in countries long accustomed to build for the future. In part, as in the case of laboratories, they indicate changes in methods of work. I well remember the place where Koch did his epoch making investi-

gation on wound infections in 1877, a small lecture room in which in vacation, some years later, I took my own first course in bacteriology. It was enough for the simple methods of those days, but the greater number of manipulations and all the chemical, physical and biological work that must be combined with cultures and inoculations makes large and well equipped laboratories essential to-day.

There is also a commercial motive in the lavish expenditure for educational and scientific institutions. This is openly stated as the explanation of the bountiful provision for hospitals and laboratories in cities on political frontiers. It doubtless plays a part in keeping up the stream of foreigners, especially Americans. For it is interesting to see how that stream does keep up, though the attractions have changed. It is not long since the man who wished to cultivate the elements of medicine, like chemistry, histology, physical diagnosis, and pathology, later bacteriology, was obliged to go abroad for them. Now, in all the good American schools, there are better obligatory courses than any given in Europe to undergraduates. But the larger quarters, the better organization for advanced work, the concentration of clinical material and the rapid adaption of new methods all tend to keep up the attendance of foreigners on the "other side."

Only actual inspection can convey an idea of the beauty and perfection of detail of laboratories like Wright's at St. Mary's, or the Serum Institute in Vienna. In the magnificent clinic of Von Rosthorn, the laboratories are as large as, and much handsomer than any I know in any of the Universities in this country. It is often said such laboratories do not produce an adequate amount of work. If in many cases this is true, the remark in general is idle, and only illustrates that brick and mortar, or even glass and marble, do not alone make seats of scientific activity.

I thought it might be of interest to show some lantern slides of hospitals. "Guy's" and "Bartholemew's" must always be interesting to medical students; the places where men like Bright and Addison worked, and where their records may still be seen, have all the charm that great historical association lends. (Lantern slides were shown of these and the following.)

Those who knew the old Charité in Berlin would not recognize it now. Many new buildings, models of North German architecture,

have been erected around and beyond the original barracks. Though more crowded than in some other cities, the various buildings are so placed among trees as to seem isolated. The imposing Hospital for Infectious Diseases, and the Pathological Institute and Museum form part of the group. Pictures of the new buildings for the clinics on Monbijou street show how even the excellent quarters in the Ziegel street have been outgrown. The most striking evidence of the large plan of Hospital work in Berlin is the new Rudolf Virchow hospital, in the north western edge of the city, yet convenient to the center by trolley cars. Friedrichshain in its pleasant park, Mozabit, with its quaint old barracks, the newer and more modern Urban and Charlottenburg hospitals seemed to be all the city would need as regards space, construction and organization. The new one shows what can be done with money, forthcoming in this case by reason of the resources of the "Krankenkassen." It was built in 1899-1906. Its 57 buildings, with 2,000 beds, occupying a part of 63.5 acres, laid out with trees and landscape gardening that make one forget he is at the edge of a growing city. The cost of building was \$4,775,000 or \$2,387 per bed, including equipment. Most of the buildings are one storied, of stucco, and while nothing has been spent for decorations, the complex is imposing from its size and arrangement, the various services being distributed with reference to convenience of work. The heating and ventilation seem excellent. There are 95 telephones, 20 of which are on the city central, and a main central with lamp signals. The water supply is from wells on the premises, and the hospitals has its own filter plant, ice-factory and machinery for aerating the water. All discharges are sterilized by steam or hot water before going to the sewer. Bath water is disinfected in the tubs. The material from the infectious wards and autopsies is disinfected with calcium chloride. All clothing of patients is disinfected on admission, and left in ventilated aseptic lockers until discharged. The laundry is most complete. Without going into details, let me mention that 12 women with machines are kept busy with repairs. The kitchen has all the labor saving devices known, as well as a highly specialized force of men and women. The hydiatic and mechanotherapeutic departments are large and well equipped, the latter with apparatus of original design. The treatment is carried out by trained assistants,

according to prescriptions. The X-Ray and Finsen departments and photographic laboratories are well arranged. The Pathological Laboratory, under the charge of Prof. Hansemann, with its bacteriologic, chemical and biologic divisions, is more extensive than most university departments of pathology in this country. The whole is cared for by 12 higher medical officers; a prosector, a dentist, 38 assistant physicians, 19 volunteer assistants and 15 undergraduates. The only thing one can criticise is that it is not a teaching hospital.

Perhaps the most remarkable evidence of the importance of medicine in Berlin is the Empress Frederic House for Postgraduate Study, not far from the north end of the Charité grounds. The large and imposing house is the center for postgraduate study, which has been organized in Germany with characteristic thoroughness, in acknowledgment of the pioneer work in that line in America. Besides the headquarters for postgraduate instruction, especially in Berlin, and rooms for certain courses, there are large and well arranged exhibits of everything relating to medicine and hygiene. One can see the instruments of various makers, medical preparations, hospitals and laboratory equipment, photographs of Sanatoria and watering places. In another part are all sorts of plumbing supplies. Catalogue and well-informed, courteous attendants assist the visitor to see what he wishes. There is a collection of anatomic preparations arranged for the inspection of the public, and another for physicians only. Special exhibits are arranged from time to time. It would seem that in cities like New York and Chicago similar places would be highly successful in every way.

As the pictures show, the clinics and laboratories of Budapest are numerous, handsome, and well arranged. The new teaching hospital for Prof. Koranyi's clinic promises to be the best planned and best arranged of any I know, every detail having been worked out after inspecting the hospitals all over Europe. Not less interesting are the University buildings of Kolasvar, formerly Klausenburg. Finally, it is interesting to see a plan of the great "Policlínico" of Rome, begun in 1894, and still being added to, its main corridor $\frac{1}{2}$ Kilometer long. Any one who visits it, as I did in September, will see that a hot climate need not check scientific

work, even if he does not recall the scientific and practical contributions of the great Baccelli and his colleagues.

Among the most striking evidence of progress in medical teaching in Europe are the schools of tropical medicine. For they show how even in old countries new conditions may be well and quickly met. The need for extensive cultivation of the study of the diseases of warm countries is obvious when we consider a few facts. Within a few years the white race has finally taken to itself almost all the hottest parts of the earth, and has penetrated further and further into them. In the same time, by a series of discoveries not less astounding than those in physical science, it has been shown that the dangers of warm countries are largely avoidable, due as they are to living organisms whose life habits and mode of entrance into the bodies of men and lower animals are rapidly becoming known. In order then to live most securely in warm countries and to work there most effectively, it is essential to apply the most accurate knowledge of tropical diseases as regards early recognition, treatment and prevention. What can be done, especially in prevention, how much treasure and how many lives can be saved, how much unnecessary interference with commerce can be avoided by following medical advice I need not tell a New Orleans audience. The control of yellow fever in 1905 is better known to you than to me. A still greater demonstration of the value of scientific medicine has been made in Cuba and in the Canal Zone. The knowledge how best to do such work can not be imparted in the already crowded courses of medical schools. It can be done in special institutions, which of course can often be combined with medical schools, and in many cases can be profitably combined with University Medical schools whose zoologists, chemists and other experts can so ably assist. In such places the future tropical physician, or the port or quarantine physician, can prepare himself for his work, and there investigations in problems still unsolved may be made. So we see that all countries with colonial possessions in the tropics have their special schools for the study of tropical diseases. The needs of commerce have led keen and hard-headed business men to foster these in practical places like Liverpool, London and Hamburg, and it is a striking thing that while so much is done there, we, with our great and important tropical connections, with a large part of the country itself having a

tropical climate and some of the most important tropical diseases, with incalculable but obviously great economic losses therefrom, have done practically nothing. I do not forget the great work done by the Public Health and Marine Hospital Service in practice and in scientific investigations, nor the many scientific discoveries of individuals. They make all the more conspicuous the need of well equipped institutions in localities where facilities exist, especially in ports where tropical diseases occur or are likely to be imported.

That New Orleans is preëminently the place for such a school has often been pointed out by others, and the time seems ripe for getting to work on it.

Either of the English schools could furnish the theme for an evening's talk—Liverpool with its record in sleeping sickness alone, or London with Manson and only a part of all that he has done. I shall limit myself to a brief description of the Hamburg school, for it seems to be particularly instructive in many ways. It was organized in 1900, the old Sailor's Hospital in the center of the harbor and close to the commercial center of the city, being adapted to the purpose. The funds were contributed by the city of Hamburg and the German Empire. Enlarged in 1906, it has already become necessary to enlarge the institution again and work to that end is in progress. Besides the hospital, the Institute contains room for the officers of the Institute and the port physicians, laboratories for the hospital assistants, and a library and reading room, equipped with all the periodicals in tropical and naval medicine as well as in internal medicine and microbiology. The room for the practical courses has places for 24, fully equipped. There are adequate laboratories for chemistry, an operating room for animals, a protozoa laboratory, a "tropical room" kept always at a temperature between 77-86° F., with a relative humidity of 60-70, where mosquitoes, flies and ticks, as well as snakes and other tropical animals can be kept. A museum, accessible also to the public, photographic laboratories, with complete equipment, an apiary, an animal house and a mosquito house should be mentioned.

In order to carry out the functions of training naval and tropical physicians, and developing tropical medicine, courses are given. Since the beginning 349 physicians have taken these courses, many

of them foreigners. The brilliant and lamented Schaudinn was perhaps the most widely known member of the staff, Nocht is the director and there are also Fülleborn, Giemsa, von Prowazek and several others. As an example of the clinical material, there were for 1905-1906

Malaria	- -	1578 cases
Dysentery-amebic	-	83 cases
Blackwater Fever	-	71 cases
Beriberi	- -	145 cases
Trypanosomiasis	-	2 cases

besides examples of most of the other tropical diseases.

Besides the work in the hospital and institute, scientific journeys have been made to Brazil, Africa, Egypt, Ceylon and India, assisted by the German steamship companies and firms engaged in various tropical trades. That the returns from such investigations will be immense, the record of the canal zone alone amply proves, for there can be no doubt that without the aid of scientific medicine, our engineers would have been as helpless as the French were before them.

The Pure Food Laws of Louisiana, Considered Particularly in Reference to Physicians and Druggists.*

By HAMILTON P. JONES, M. D., New Orleans.

In order that I might intelligently and logically take up this subject, I shall read the enabling Act of the Legislature which instructed and authorized the Louisiana State Board of Health to formulate and promulgate a Sanitary Code and a Food and Drug Law; after which I shall read various extracts from the Food and Drug Law as formulated under this enabling act, affecting particularly physicians and druggists, and shall conclude with a discussion of the necessity for these laws and regulations, the difficulties so far encountered in their enforcement, and some kindly criticisms of both physicians and druggists.

FOOD AND DRUG LAW.

ACT No. 98.—House Bill No. 295. By Mr. Smart (Chairman of the Committee on Public Health and Quarantine). Substitute for House Bills Nos. 52 and 94. An act to further carry into effect Art. 297 of the Constitution of the State of Louisiana, and to preserve the public health.

Be it enacted by the General Assembly of the State of Louisiana, Author-

* Read before the Orleans Parish Medical Society, October 25, 1909.

izing the State Board of Health to provide rules for regulation of pure food, drugs, liquors, etc. Section 1. That the State Board of Health for the State of Louisiana be, and is hereby, authorized and empowered; in order to further carry into effect Art. 297 of the Constitution of 1898, to revise the Sanitary Code provided for by Section 3 of Act 192 of 1898, and to incorporate therein rules and regulations governing the manufacture, sale and inspection of foods, liquors, waters and drugs within the State, in so far as the same may affect the public health; to fix standards of purity; to provide for the collection of samples and the entering of premises for this purpose; to provide for the establishment of a laboratory for the analysis of foods, liquors, drugs and waters; to employ an analyst and assistants, and fix and pay their compensation; and to do all other acts as may be requisite and proper to carry this act into effect.

Provided, that as a standard of purity and strength for drugs, chemicals and medicines, the said Board shall adopt the United States Pharmacopœia and National Formulary as to all drugs, chemicals and medicines therein contained and treated of; and the Board shall renew said adoption as often as new or revised edition of the said Pharmacopœia and National Formulary are issued.

Section 2. *Be it further enacted, etc.*, That the power to further revise and amend said Sanitary Code is hereby conferred on said State Board of Health for the State of Louisiana; *provided*, that any revisions or amendments adopted by said Board shall, before going into effect, be promulgated in the same manner as is required by existing law for the Sanitary Code.

PENALTY. Section 3. *Be it further enacted, etc.*, That any person violating any of the provisions of said Sanitary Code shall, on conviction by any court of competent jurisdiction, be fined not less than ten nor more than two hundred dollars for the first offense; not less than twenty-five nor more than four hundred dollars for the second offense; not less than fifty nor more than five hundred dollars, or imprisonment for not less than ten days nor more than six months, or both, in the discretion of the court, for each subsequent offense.

Section 4. *Be it further enacted, etc.*, That all fines imposed under the provisions of this act shall be paid into the treasury of the State, to the credit of the general fund.

Section 5. *Be it further enacted, etc.*, That it shall be the duty of the President of said Board to make an annual report to the Governor of the operation of said Board of Health under this act.

Section 6. *Be it further enacted, etc.*, That this act shall take effect from and after its promulgation, and all laws and parts of laws inconsistent or in conflict with the provisions of this act be and the same are hereby repealed.

(Signed)

J. W. HYAMS,

Speaker of the House of Representatives.

P. M. LAMBREMONT,

President Pro Tem. of the Senate.

Approved July 7, 1906.

NEWTON C. BLANCHARD,

Governor of the State of Louisiana.

A true copy:

EUGENE J. MCGIVNEY,

Assistant Secretary of State.

Promulgated July 12, 1906.

The following extracts from the regulations formulated from the above are of direct interest:

REGULATION 9.—*Method of Analysis.* Unless otherwise directed by the State Board of Health, the methods of analysis employed shall be those

prescribed by the Association of Official Agricultural Chemists and the United States Pharmacopœia.

REGULATION 11.—*Definition of the Words Foods and Drugs as Used Herein.* (a) The term drug, as used in these regulations, shall include all substances, compounds and preparations recognized in the United States Pharmacopœia or National Formulary, for internal or external use, and any other substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease of either man or animals.

In the case of drugs, the nomenclature employed by the United States Pharmacopœia and the National Formulary shall obtain, and if the article conforms to either of the above standards, no other statement is necessary than U. S. P. or N. F. as the case may be.

REGULATION 16.—*Proper Branding Not a Complete Guarantee.* Packages which are correctly branded as to character of contents, place of manufacture, name of manufacturer, or otherwise, may be adulterated, and hence not entitled to enter into commerce of this State.

REGULATION 17.—*Incompleteness of Branding.* A compound shall be deemed misbranded if the label be incomplete as to the names of the required ingredients. A simple product does not require any further statement than the name or distinctive name thereof, except as provided for in these regulations.

REGULATION 18.—*Substitution.* (a) When a substance of recognized quality commonly used in the preparation of a food or drug product is replaced by another substance not injurious or deleterious to health, the name of the substituted substance shall appear on the label.

(b) When any substance which does not reduce, lower or injuriously affect its quality or strength, is added to a food or drug product, other than that necessary to its manufacture or refining, the label shall bear a statement to that effect.

REGULATION 19.—*Waste Material.* When an article is made up of refuse materials, fragments or trimmings, the use of the name of the substance from which they are derived, unless accompanied by a statement to that effect, shall be deemed a misbranding. Packages of such materials may be labeled "pieces," "stems," "trimmings" or with some similar appellation.

REGULATION 20.—*Standard for Drugs.* The United States Pharmacopœia and National Formulary shall constitute the standards of purity prescribed by the act authorizing the State Board of Health to enact these regulations.

(a) For the purposes of these regulations an article shall be deemed to be adulterated, in case of drugs, if, when a drug is sold or offered for sale under a name or by a name recognized in the United States Pharmacopœia or National Formulary, it differs from the standard of strength, quality or purity as determined by the test laid down in the United States Pharmacopœia or National Formulary, official at the time of investigation.

(b) Every apothecary, druggist or other person or persons carrying on business as a dealer in drugs and medicines, who in putting up such articles or making up any prescriptions or filling orders thereof, who omits to label the same, or puts an untrue label, stamp or other designation of contents upon any box, bottle or other package containing any drugs, or substitutes a different article for the article ordered, or puts up a greater or less quantity of such article than the prescription or order calls for, or otherwise deviates from the terms of the prescription, violates these regulations.

REGULATION 22.—*Drugs, Amount of Alcohol in Proprietary or Patent Food Preparations Must Be Stated.* Upon every package, bottle or other receptacle holding any proprietary or patent food preparation which contains alcohol, shall be marked or inscribed a statement of the percentage of alcohol by volume contained. The use of methyl alcohol, refined or otherwise, is prohibited except as provided in the U. S. Pharmacopœia.

REGULATION 23.—Percentage of Opium, Morphin, Etc., to Be Shown on Label. Every package, bottle or other receptacle holding any proprietary or patent medicine, or any proprietary or patent food preparation, shall bear a label containing a statement of the quantity of any opium, morphin, heroin or chloral hydrate, or any derivatives thereof, contained therein.

REGULATION 24.—Articles Containing Cocain Prohibited. It shall be unlawful for any person, firm or corporation to sell, or to expose for sale, or to give or exchange any cocain, or alpha or beta eucain, or any synthetic substitute of the aforesaid, or any preparation containing the same, or any salts or compounds thereof, except upon the written prescription of a physician, dentist or veterinary surgeon, registered under the laws of the State, the original of which prescription shall be retained by the druggist filling the same, and shall not again be filled. *Exemptions:* Provided nothing herein contained shall be construed as applying to sales at wholesale, made to retail druggists or dental depots, nor to sales made to physicians, dentists, veterinarians, or to regularly incorporated hospitals, sanitoriums or dispensaries.

REGULATION 25.—Substances Named in Drugs and Foods. (a) The term "alcohol" is defined to mean grain or ethyl alcohol. No other kind of alcohol is permissible in the manufacture of drugs, foods, liquors or waters, except as specified in the United States Pharmacopœia or National Formulary.

(b) The words alcohol, morphin, opium, etc., and the quantities and proportions thereof, shall be printed in letters corresponding in size with those prescribed in these regulations.

(c) A drug or food product is misbranded in case it fails to bear a statement on the label of the quantity or proportion of any alcohol, morphin, opium, heroin, cocain, alpha or beta eucain, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any substance contained therein.

(d) The following are the principal derivatives and preparations made from the articles which are required to be named upon the label. In the case of compounds, in the order of their relative potency:

Alcohol ethyl (cologne spirits, grain alcohol, rectified spirits, and spirits of wine). *Derivatives*—Aldehyde, ether, ethyl, acetate ethyl, nitrite and paraldehyde.

Preparations containing alcohol, bitters, brandies, cordials, elixirs, essences, fluid extracts, spirits, sirups, tinctures, tonics, whiskies and wines.

Morphin Alkaloid. *Derivatives*—Apomorphin, dionin, peronin, morphin acetate, hydrochloride, sulphate, and other salts of morphin.

Preparations containing morphin or derivatives of morphin: Bougies, catarrh snuff, chlorodine, compound powder of morphin, crayons, elixirs, granules, pills, solutions, sirups, suppositories, tablets, triturates, and troches, or other forms of compounding.

Opium, Gum. Preparations of opium. Extracts, denarcotized opium, granulated opium and powdered opium, bougies, brown mixture, carminative mixture, crayons, Dovers powder, elixirs, liniments, ointments, paregoric, pills, plasters, sirups, suppositories, tablets, tinctures, troches, vinegars and wines. *Derivatives*—Codein, alkaloid, hydrochloride, phosphate, sulphate, and other salts of codein.

Preparations containing codein or its salts, elixirs, pills, sirups and tablets. Cocain alkaloid: *Derivatives*—Cocain, hydrochloride, oleate, and other salts.

Preparations containing cocain or salts of cocain: Coca leaves, catarrh powders, elixirs, extracts, infusion of coca, ointments, paste, pencils, pills, solutions, sirups, tablets, tinctures, troches and wines.

Heroin. Preparations containing heroin: Sirups, elixirs, pills, tablets.

Alpha and beta eucain. Preparations: Mixtures, ointments, powders and solutions.

Chloroform. Preparations containing chloroform: Chloroanodyne, elixirs, emulsions, liniments, mixtures, spirits and sirups.

Cannabis Indica. Preparations of cannabis indica: Corn remedies, extracts, mixtures, pills, powders, tablets and tinctures.

Chloral Hydrate (Chloral, U. S. Pharmacopœia, 1890). *Derivatives*—Chloral acetophenonoxism, chloral alcoholate, chloralimide, chloral orthoform, chloralose, dormiol, hypnol, and uraline.

Preparations containing chloral hydrate or its derivatives: Chloral camphorate, elixirs, liniments mixtures, syrups, ointments, suppositories, and tablets.

Acetanilid (antifebrin, phenylacetamide). *Derivatives*—Acephenetidin, citrophen, diacetanilid, lactophenin.

Methoxy acetanilid, methyl acetanilid, para todo acetanalid, and phenacetin.

Preparations containing acetanilid or derivatives: Analgesics, anti-neuralgics, anti-rheumatics, cachets, capsules, cold remedies, elixirs, granular effervescent salts, headache powders, mixtures, pain remedies, pills, and tablets.

(e) This regulation does not apply to prescriptions of duly registered physicians, dentists or veterinarians, when the prescription is filled for the use of the person for whom it was prescribed.

REGULATION 26.—*Relative to Drugs and Prescriptions.* Section 1. No prescription shall be refilled which contains any of the following drugs, viz.: Opium, or its derivatives; chloral hydrate, chloroform, hyoscyamus, cannabis indica, acetanilid, sulphonal, trional, isopral, hedonal and veronal, when the words "Do not refill" are written on the prescription above the signature of the prescribing physician.

Sec. 2. The sale of opium or its derivatives, paregoric excepted; cocain or its derivatives, and chloral hydrate, is prohibited, except to physicians, pharmacists, veterinary surgeons and dentists.

Sec. 3. Patent medicines or compounds which are made for the destruction of vermin, containing ingredients of a poisonous character, may be sold without a physician's prescription to persons of full age and sound mind, and personally known to the vendor. These articles shall always be labeled "Poison."

Sec. 4. The sale of carbolic acid in ten per cent solution of glycerin or alcohol is permissible without registration, providing same is labeled in accordance with rules governing the sale of poisons.

Sec. 5. It shall be unlawful to sell, or barter, or give away: Caulophyllum, cotton root, ergot, oil of savine, ruta, tansy, apiol, European oil of pennyroyal, or their compounds, or any other abortifacient, without a written prescription of a duly registered physician or veterinarian.

Sec. 6. All druggists and all other persons dealing in or selling poisonous substances shall keep a special book, open at all times to the proper authorities, in which they shall register the name and quantity of the drug, and the name and residence of the person to whom any poisonous substance is sold, the use it is intended for, also the date of the sale, whether sold upon a personal acquaintance with the buyer.

Sec. 7. A poison label, as used in these regulations, shall be construed to mean one printed in red ink, with a skull and cross-bones symbol, and the antidote for the poison that the label indicates.

It will be seen from these excerpts that these regulations have been carefully and accurately drawn up with the end in view of protecting the consuming public against the purchase of the more important habit forming drugs, and placing upon the prescribing physician the responsibility of writing upon the prescription the

words "do not refill,' knowing that if he fails to write this upon the prescription, and the patient acquires the drug habit through constant renewal of a prescription, that the blame lies alone upon him.

It is a matter of common knowledge to all of you that the efficacy of the great majority of pain relievers and headache cures depend upon an opium or coal tar derivative content of one sort or another, and this regulation 26 effectively attempts to put a stop to the promiscuous sale of these articles whether they be in the form of *wafers*, *pills*, powders, liquids or whatnot.

The Board of Health has labored hard and earnestly over this subject, and it is my belief that the laws of the State of Louisiana are far in advance of those of any other State with which I am familiar, that is, in their broader sense. We have had numerous conferences with the druggists concerning these laws, and it has been a matter of constant complaint with them that the physicians do not give them the proper encouragement in following out the letter and spirit of the law. They state that it is a matter of common practice for physicians to verbally order, for instance, tincture of opium to be purchased either by a nurse or some inmate of a household. This is of course entirely wrong, as druggists are not permitted to sell these prohibited drugs even to trained nurses and midwives.

I do not know upon whom lays the greater part of the blame for the enormous and promiscuous use of patent and proprietary preparations, but certainly a great part of the blame must rest with the physicians when an examination of numerous druggists' prescription files shows that over 50 per cent of all prescriptions written and filled contain one or more proprietary or patent preparations.

This astonishing and abominable state of affairs points to the conclusion that there must be a great lack on the part of the medical profession in the art of prescribing, and knowledge of the contents of the U. S. Pharmacopoeia, the National Formulary, and the Dispensatory, coupled with lack of sureness of knowledge of the action of important drugs and also seems to point to a certain amount of laziness and unwillingness to study. How many physicians own any of the above mentioned standard works? How many depend upon the traveling salesman for so-called "new-wrinkles and tips?" Is it not infinitely harder to carry in ones mind the variety of facts necessary to the proper prescribing of a proprietary

preparation than it would be to thoroughly master the few drugs that are really worthy of consideration and use.

Of course, I realize that the pharmaceutical art as practiced by most of the smaller druggists is not such as to always insure a uniform finished product, no matter where put up, and that the great manufacturing houses have thoroughly detailed and sampled the profession with their respective products. The time was when money spent in detailing and sampling physicians, printers ink and space would accomplish wonderful results, but there has been an awakening due to the influence of the operation of the National and State Food Laws, which has required the examination of these proprietary preparations in the light of analysis and cold fact. The result has been to show that it has been very unwise and very unsafe to entrust any duty which the physician owes to his patient to any third party over whom neither he nor his patient has any control.

In conducting the work of the Food and Drug Department and Laboratory, it has been my effort to take up those things that seemed of more vital importance, and among other things that I have taken up has been the analysis of prescriptions filled in all parts of the State containing standard Pharmacopœial preparations; these prescriptions were written by duly registered physicians and and filled by druggists who were in ignorance of the use which they were to be put; these prescriptions were for tincture of digitalis, tinct. of nux vomica, and a series containing a 50% solution of iodide of potash in water. To the glory of the honesty of the druggists, be it said, that every one of these prescriptions came within pharmaceutical limits and requirements. So that the only solution for this whole vexed question is to discourage the sale of patent and proprietary medicines by not prescribing them yourselves, and to be more studious, less careless and less credulous.

At the present time the Food and Drug Department is engaged in the routine examination of foods and drugs, and as a special line of work is making a systematic and careful bacteriological and chemical study of the water and milk supply of the various cities throughout the State. In regard to the dairy interests, we now have under way a system of sanitary inspection and score card system which will, in the course of the next six or nine months,

enable us to carry into effect a plan which we now have in view for the economical supervision and not too expensive delivery to the consumer of certified milk. So soon as the time affords itself, it is our intention as being next in importance after the milk supply to take up the various infant foods upon the market.

A Case of Esophageal Stricture, Treated by Sling-shot of Various Sizes With Excellent Results.*

By CARROLL W. ALLEN, M. D., New Orleans.

The case I wish to present to-night illustrates the results obtained by a simple, safe and in suitable cases effective method of treating esophageal strictures. The method is not original as it is spoken of in some of our books. However, I first learned of it some years ago from Prof. Matas who had obtained excellent results in a case of esophageal stricture following typhoid fever.

The patient before you, O. Chestant, aet 19, entered ward 69, Charity Hospital, Aug. 10th, '09, and gave the following history: At 4 years of age he swallowed some condensed lye. Difficulty in swallowing food occurred soon after and before very long he could take only liquids in very small quantities, about a teaspoonful at a time; if he attempted taking larger quantities it was regurgitated soon after. The swallowing of solid or semi-solid food was impossible. This condition persisted up to the time of entering my service.

His general health had been good and despite the interference in swallowing his nutrition and development have been fair. This is the first time since learning of this treatment that I have had a case sufficiently old and intelligent to furnish the needed coöperation necessary for success by this method.

The stricture was located in the upper part of the throat or base of the neck but no attempt was made to dilate it with bougies for fear of entering and rupturing a sacculation or dilatation at or just above the point of stricture.

A skiagraph was taken following the swallowing of some bismuth but as the plate is bad I will not exhibit it. As the patient could

* Read before the Orleans Parish Medical Society, October 25, 1909.

swallow small quantities of liquid it was all that we needed to commence the treatment; accordingly a stout piece of silk was secured and two very fine bird shot perforated and fastened on one end. Two shot were used because they were so small it was thought that one would not have sufficient weight.

The patient was now requested to swallow these keeping hold of the other end of the string, at first they did not seem to pass the stricture, but by drinking a sip of water and waiting some time they were felt to slip through beyond the stricture, then with a little steady traction upon the string they were pulled back again. Having received his first lesson he was requested to do this frequently through the day unless he felt that he was getting sore. Next day he realized that he could swallow liquids perceptibly faster. This was continued for several days until he felt that the shot upon being withdrawn ceased to meet resistance, then two slightly larger shot were substituted and the process continued. The size of the shot was gradually increased until now he swallows without difficulty this lump of lead as large as a pecan and will presently give you a demonstration.

He has been lately taking solid food, the first since he was four years old, and the benefit derived from it has been evident in his rapid gain in weight. I have lately passed a bougie about as large as the piece of lead he now uses, into the stomach, the stricture is very evident but is easily passed. The coöperation of this patient has been most thorough and the good results have been due largely to his zeal and interest in the treatment.

In selecting cases for this plan of treatment it is necessary that at least liquids in small quantities can pass the stricture. In cases where the stricture has completely closed this treatment is of course impossible. The patient must also be sufficiently old or intelligent enough to coöperate. After the stricture has been dilated to a fair size bougies can be used in conjunction if desired, but they have not been necessary in this case.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

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Plastic Surgery of the Face; A Report from the Surgical Clinic of Tulane University

By CARROLL W. ALLEN, M. D., New Orleans.

Plastic, or reparative surgery, is of very ancient origin. Its methods, technic and possibilities have kept pace with the progress of surgery until to-day it is limited largely by the skill of the operator, exercised within certain surgical bounds.

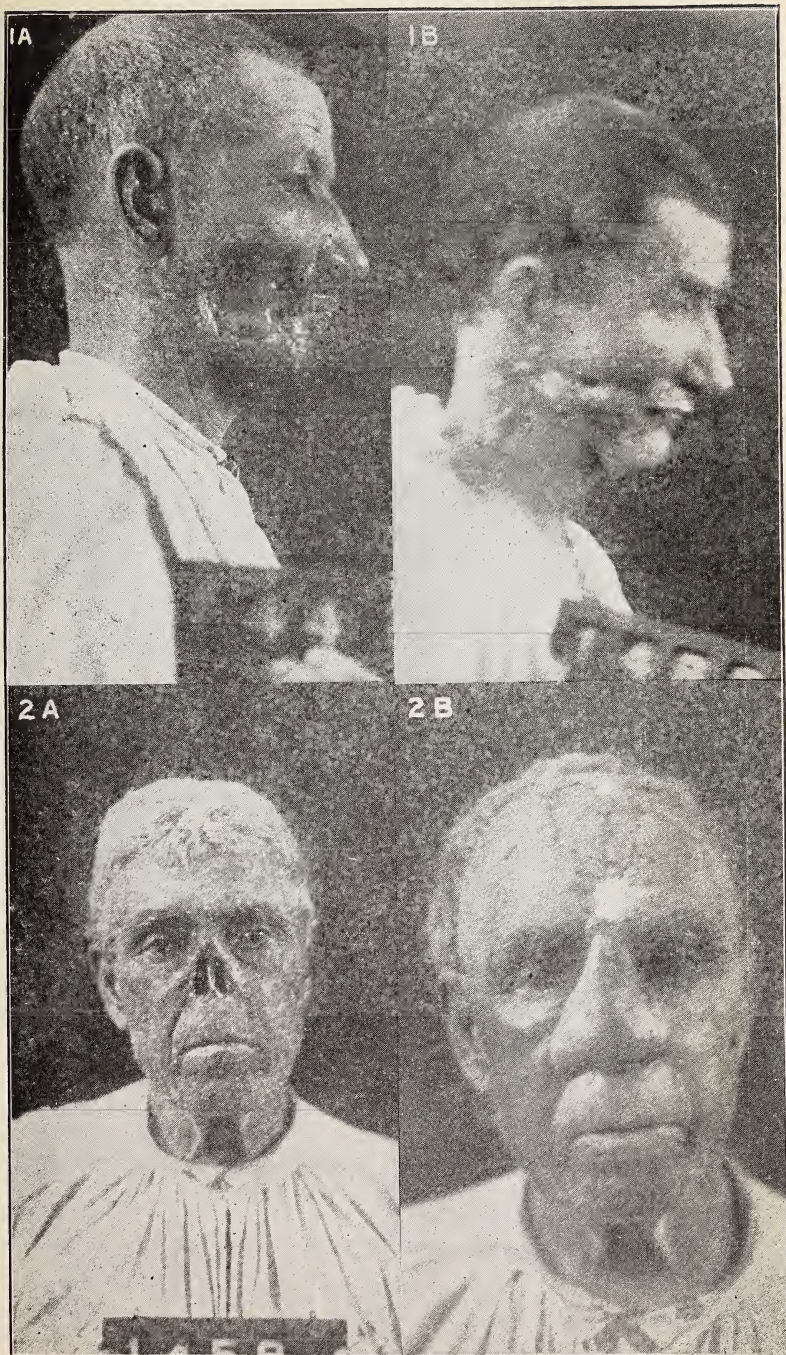
Few fields of surgery are more fascinating and interesting than plastic work, particularly of the face, and none calls for greater precision, accuracy and exactness in all of its details, from the first incision to the last stitch. Here mechanical ingenuity, ability, delicate touch, a true eye for distance and perfect adjustment, and often an artistic sense, together with the other attributes of the general surgeon, all hold high place in the results obtained.

Here every detail of the work must be studied, carefully planned, and, if necessary, mapped out beforehand. No detail is too slight to be overlooked. Scars must be reduced to a minimum and inconspicuously placed, and no tissue wasted.

When we consider the severe mutilations and disfigurements of the face we are sometimes called upon to deal with, we realize the great good we can do. No patients are more grateful and appreciative than those made presentable to their fellow beings. The workingman or woman, ostracised by their hideous and repulsive appearance, able to take their place and earn a living among their fellowmen; and the young woman, all but impossible in society, or as a wife, restored to her natural sphere.

This paper will report a number of cases occurring in the Tulane surgical clinic on patients with facial disfigurements, the result of accident or disease.

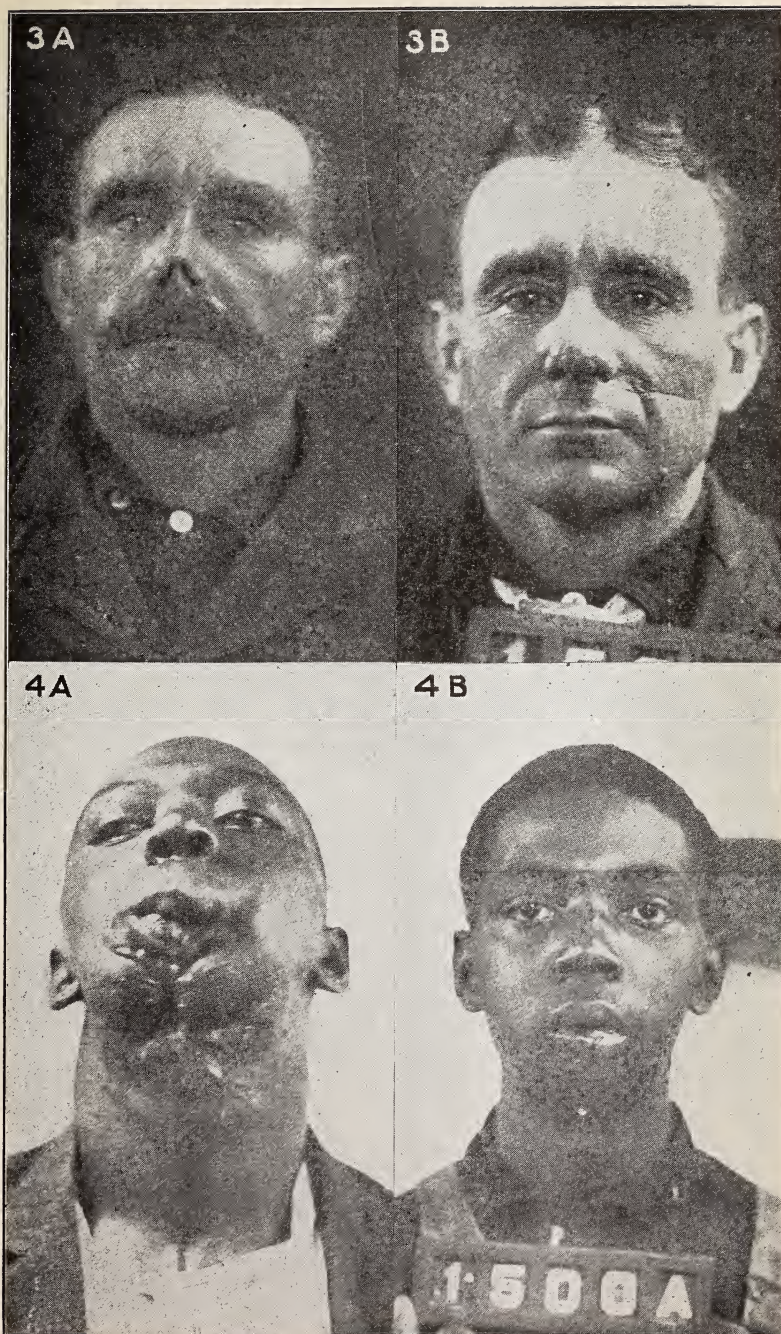
CASE I. Wilder, *aet* 52. Family and previous personal history unimportant, except that he has been neglectful in the toilet of his mouth and has permitted his teeth to become badly diseased.



1A. Case I, before plastic operation.
2A. Case II, before operation.

1B. Case I, first stage.
2B. Case II, first stage.

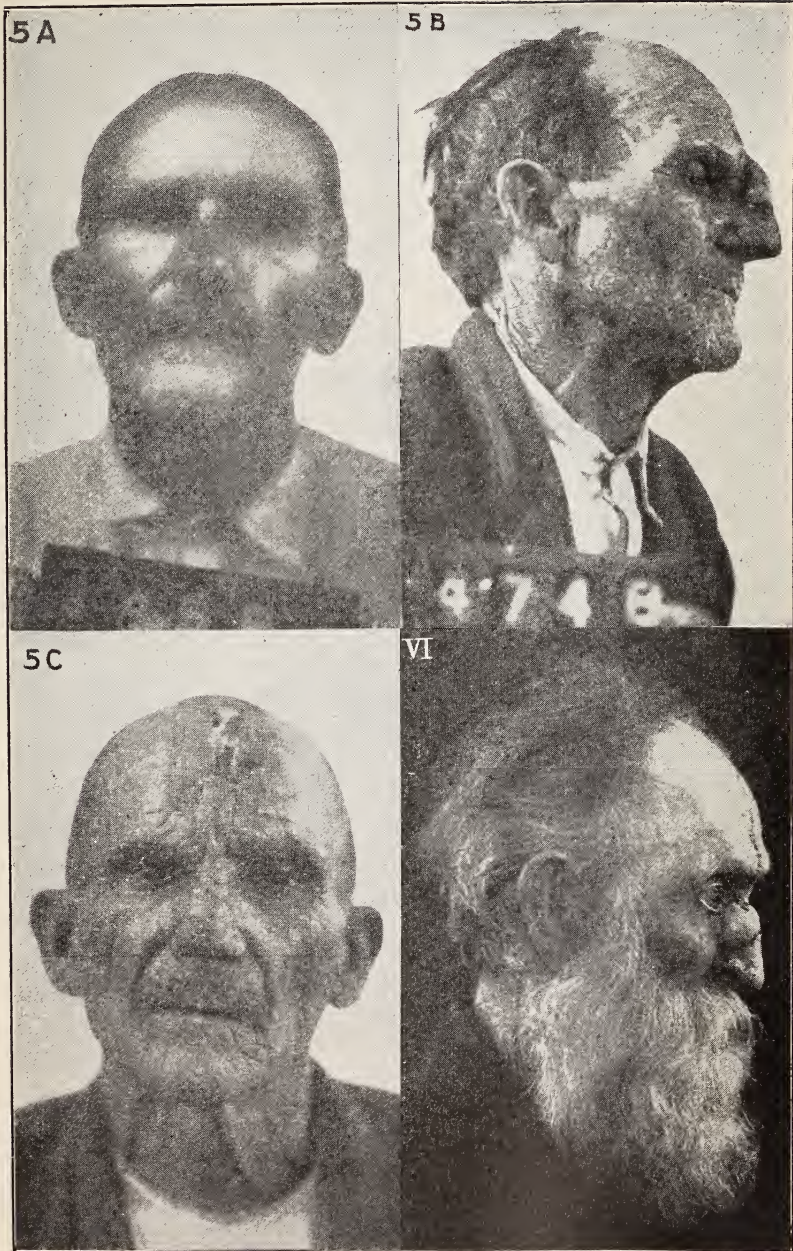
ILLUSTRATING DR. ALLEN'S ARTICLE.



3A. Case V, before operation.
4A. Case VI, before operation.

3B. Case V, finished.
4B. Case VI, finished.

ILLUSTRATING DR. ALLEN'S ARTICLE.



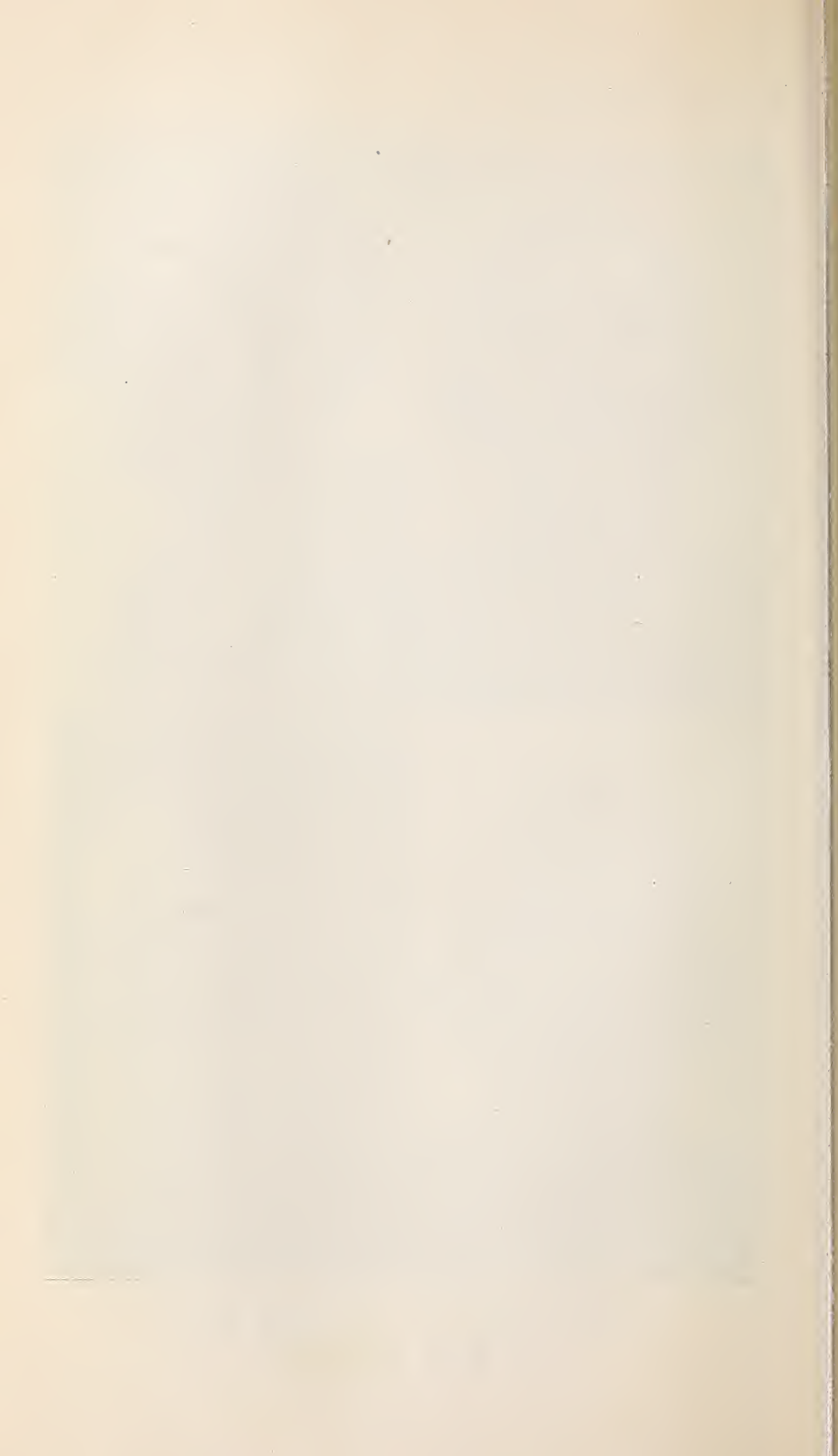
5A. Case III, before operation.

5C. Case III, finished.

5B. Case III, first stage.

VI. Case IV, finished.

ILLUSTRATING DR. ALLEN'S ARTICLE.



Nine months ago a small nodule developed on the inner side of the right cheek opposite the last upper molar. It grew rapidly until May 9, 1908, when first seen it had developed into an extensive growth extending from the margin of the cheek and gum above to the lower border of inferior maxilla below, extensively involving this bone. Its anterior limits were near the mouth and posteriorly it extended to the ramus of the jaw. Within the mouth it had extended to near the border of the tongue. Two foul crater-like openings had formed on the cheek which communicated with the buccal cavity. No metastasis apparent in any of the adjacent glands.

The case was considered inoperable, but upon the patient's pleadings and his agreeing to a mutilating operation, an extensive resection was performed on May 11, by the author, Dr. Lucian Landry assisting. The steps of the operation were briefly: Temporary preliminary ligature of com. carotid, proceeding up the neck, a thorough removal of all glandular and cellular tissue down to wall of pharynx, leaving only the great vessels—pneumogastric and sympathetic nerves—cleaning out the superior carotid, submaxillary and submental triangles. Removal of cheek from the malar prominence back to the parotid gland and forward to the angle of the mouth. Division of inferior maxilla at symphysis, and removal of right half with overlying soft parts. Removal of the soft parts at base of the tongue down to the deep muscles. This dissection left the side of the mouth and pharynx open, with the Int. carotid felt pulsating in the posterior angle of the wound. The edges of the wound were mobilized and drawn together and stitched to underlying tissues so as to very much reduce the opening, but still leaving an unsightly gap exposing the buccal cavity and pharynx and interfering with speech and deglutition.

July 14. The wound having healed kindly with no further evidence of malignancy apparent, the first of a series of operations, having in view the restoration of the cheek, was undertaken under cocain solution. The margins of the wound were freshened and the skin dissected free from mucous membrane. A skin flap about three inches wide with its base towards the angle of the wound was then dissected up from the side of the neck from a region free from hair, the flap being long enough to reach to the anterior margin of the gap. It was then drawn forward and the skin surface

turned in and sutured to the mucous membrane above, below, and in front. The gap in the neck was narrowed by approximating sutures to lessen the resulting scar. Cocain was used to avoid the possibility of injury to the flap from post anesthetic vomiting. Notwithstanding our precaution, a part of the flap sloughed and was lost.

August 7. The above procedure was repeated along identical lines to replace the sloughed fragment and succeeded well. This left an opening into the mouth posteriorly under the pedicle of the flap.

August 31. The pedicle of the flap was divided and this posterior opening closed. This last succeeded with the exception of a gap at one of the angles, due to the constant movement of the flap during all efforts at deglutition. This was subsequently closed at a later operation.

After all had healed, we had a mass of cicatrixes externally on what had formerly been the under surface of the skin. These cicatrixes prevented to a great extent the free opening of the mouth. To relieve this, these were dissected out at several subsequent operations and skin flaps from the adjacent regions sutured upon the raw surfaces, the skin externally, thus restoring to a great extent the free opening of the mouth, facilitating speech and mastication on the other side of the mouth.

The result as a whole is very satisfactory, the plastic work completely filling in the unsightly gap that had existed, several extensive scars marking its site. The various photographs illustrate the different steps of the work and its final result. A fistula later occurred on the cheek and has not yet been closed.

In considering work of this kind, skin surfaces, when utilized and turned into the various orifices of the body, become in time almost identical with the mucous membrane, but care should be taken to select skin free from hair, as this will continue to grow within the cavity and prove very troublesome. Where hairy skin has to be used, the hair should first be destroyed, either by the X-Ray or electrolysis.

In closing extensive gaps of this kind, should the raw surface of the skin be turned in, the work would be simplified and the resulting scars lessened, but the raw under surface of the skin will eventually form a dense scar which will contract, producing cica-

tricial ankylosis. The external appearance might be slightly better, but the functional result would be bad. In this case, as in all the others, whether about the mouth, nose, or elsewhere, great care was always taken in the after care of the flaps until union had become firm. Frequent irrigations with warm antiseptic solutions are necessary, and as little dressing used as possible, often none at all, but when used, changed frequently to prevent the retention of secretions against the flaps, thus avoiding maceration and infection.

CASE II. Pat H., *aet* 73. Pronounced alcoholic. Lost his nose several years ago through lupus. The growth was finally arrested after it had eaten down level with the face, exposing the nasal bones above. Owing to the patient's age and bad general condition, an operation that would give him a nose with a mucous or cutaneous lining inside was not considered, but it was thought best to proceed as we did.

September 2, 1908. Under Schleich solution the entire ring of old scar tissue and ulcerated surface was dissected away. A large flap was brought down from the forehead by the Indian method and fashioned into a nose, cutaneous surface externally. The lower end was notched to form a septum; two parallel incisions made on each side $\frac{1}{4}$ inch apart to form nostrils, and the resulting flap turned inside to add solidity to the tip. Several double silk worm gut sutures were now passed through and through the flap, commencing slightly above the nostrils and progressing upward in the middle line to cause the inner surface to unite in this position and give the appearance of a septum, the pinching produced favoring the development of the alæ below. Rubber tubes were then placed in the newly made nostrils. The skin on the forehead was mobilized and the margins approximated to within $\frac{1}{2}$ inch of each other.

September 11. The small raw surface left on the forehead was covered with Thiersh grafts taken from the thigh.

The appearance of the nose was highly satisfactory, so much so to the patient that he immediately deserted the hospital to show himself in town, where he went on a protracted spree and was not seen again for four months. During this time the pedicle had become flattened down, narrow and firmly adherent and it was only on close examination that the former outlines of the pedicle could

be traced. Owing to the long lapse of time from the first operation, it was decided best not to interfere further.

CASE III. P, *aet* 55. Epithelioma of nose involving right ala, tip and portion of left ala. Removal under cocain September 25, 1908, including both ala, tip and part of septum; both nasal fossæ were freely opened. More tissue should have been removed, but the patient objected. The gap was filled at once by a flap taken from the forehead by the Indian method.

October 13. Pedicle divided and grafts applied to forehead.

Since writing this the growth has recurred and the patient returned.

CASE IV. M, *aet* 67. Epithelioma of right side of nose involving inner canthus right eye, causing ectropion of the lower lid. Removal under cocain December 24 by wide and deep incision down to the nasal bones. Raw surface filled by flap from forehead and inner canthus of eye restored by a portion of the flap. Pedicle divided later and parts further adjusted. Result highly satisfactory.

CASE V. P., *aet* 35, ward 9. Lost the left ala, tip and part of the right ala of his nose as the result of an assault with a knife three years ago, leaving an unsightly gaping appearance to the nose. February 10, 1909, a flap was lifted from the cheek along the margin of the beard line, with its base near the nose, its distal end was fashioned into the shape of the missing parts, twisted on its pedicle and sutured to the stump of the nose, bringing down the mucous membrane of the nares to line the inner raw edge.

February 23. Pedicle divided and end trimmed into shape. Several minor incisions were later necessary. The final result is shown in the photograph. I must thank Dr. Menage for removing some hairs from the transplanted part.

A very unusual and unique case of the kind is that of C. C., colored male, who was shot from ambush in an attempted assassination. The load of shot carrying away the entire anterior portion of the inferior maxilla, chin and floor of the mouth. In this condition he reached the hospital, the cheeks hanging down in ragged flaps and the tongue dangling in the depths of the wound, which was badly infected, pus and saliva constantly dribbling onto his neck, and speech was much impaired.

The case was first attended by one of our confreres, who later

did a plastic operation in an attempt to close the mouth, meeting with partial success, much improving the condition, but leaving a troublesome salivary fistula. It was at this stage that the case came under the care of Dr. Matas. The accompanying photographs give a fair idea of the condition at this time.

An operation to close the fistula and restore the chin was performed by Mr. Matas. The tissues in the middle line were freely divided down to the mucous membrane, the incision carried as far back as the depths of the original wound; the fistula was excised together with many fibrous and gristle-like masses that had formed to bridge the gap. The mucous membrane was mobilized and closed by a continuous suture up to a point in front of the tongue. A filigree of silver wire (Witzel filigree) was then shaped into the form of a chin and fixed in the depths of the wound, arching forward from the remnants of the Inf. maxilla on each side. The skin and subcutaneous tissues were then mobilized, drawn forward and closed over this artificial chin, completely burying it. The result, from a cosmetic point of view, was highly satisfactory, as illustrated by the photographs, and, as subsequently found, very comfortable and useful to the patient in supporting the mouth and lower lip.

The patient was discharged well in three weeks, with a firm, well formed chin, under good control, and with speech much improved.

The results in this case were very pleasing to those who had the patient in charge, and illustrate a very ingenious method.

Another very unusual and interesting case is that of E. S., *aet* 28, operated upon by Dr. Matas, which I will briefly summarize.

For the past twenty years he had complete bilateral cicatricial ankylosis of the jaw, the result of repeated mercurial stomatitis from calomel. When first seen, November, 1900, the jaws were so firmly locked that a knife blade could not be made to enter between the teeth. The Inf. maxilla was of infantile size from non-use and lack of development, with speech decidedly impaired. The correction of this grave deformity and affliction was undertaken by a series of operations.

The first step of Jäsche's operation was performed under cocaine sol., as a general anesthetic would have been exceedingly dangerous in the event of choking, vomiting or swallowing of the tongue.

The cheeks on each side were divided back to the rami of the jaw and the buccal cavity freely opened; a mass of dense fibrous bands, partially ossified, was cut away down to the healthy tissue; in places it was necessary to use a rongeur, or chisel, to divide these masses. The skin of the cheeks was next turned in above and below and sutured to the relics of mucosa at the gingivobuccal junction. This had the effect of producing an enormous mouth, a macrostoma, extending from the lips in front to the rami of the jaw behind; between the turned in cheek flap—above and below—the teeth could be seen badly deformed and in vicious attitudes. A systematic effort was next made to secure mobility of the lower jaw by having the patient pull down on a piece of rubber tubing passed through the mouth from side to side; this was followed by decided improvement.

“Five months later the second stage of Jäsche’s operation was performed by cutting two semilunar flaps from the upper and lower margins of the buccal cleft, each flap extending at its fixed or attached portion from the angle of the mouth to the end of the newly formed cheek gap. After dissecting these flaps, they were turned into the mouth in such a manner that the epidermal surface faced the interior of the mouth and formed the inner lining of the cheek, the raw surface looking outward. The fixed edge remained attached to the gums and alveolar processes; the free margins were sutured together with fine cat-gut, thus forming a complete continuous partition which replaced the lost mucosa of the cheek, the diaphragm thus formed also acting as a barrier to the secretions of the mouth and preventing their entrance into the cheek wound. The external incision in the cheek was then readily closed by a series of interrupted cat-gut sutures.”

The flaps on the right side healed well and by first intention, but on the left side they sloughed away in consequence of defective vascular supply.

Before again undertaking the restoration of the cheek on the left side, a further mobilization of the jaw was attempted by excising the right temporo-maxillary joint and a large part of the ascending ramus of the jaw.

A pseudarthrosis was next created on the left side by excising a wedge shaped piece from the angle.

By the Gussenbauer method a long pedunculated flap was dis-

sected up from the hairless part of the neck and transplanted into the mouth as a lining for the left cheek which was then closed over it; this was done in two stages and the pedicle later divided.

This met with success and terminated the case, restoring to a great extent the functions of the mouth in what at first might have seemed an insurmountable and irremediable condition. When he left the hospital, he had free use of his jaw, could separate his front teeth more than one inch and could eat any ordinary food without difficulty, and speech was nearly normal.

(This case was reported in detail by Prof. Matas in the *Journal of the A. M. A.*, November 28, 1903.)

DISCUSSION.

DR. ALONZO GIVENS, of Covington: I would like to ask if any special form of anesthesia was employed in these two cases which the Doctor reported. I am interested in that point.

DR. F. W. PARHAM, of New Orleans: The subject is too large to discuss in extenso. This work has always been extremely interesting to me. I have had some little experience in doing plastic work, and have found out some of the difficulties. Referring especially to a case where the jaws had grown tightly together, we made an incision from the commissure of the lip back to the muscle, laying the whole length of the horizontal portion of the jaw bare. Of course, it left, as Dr. Allen has shown, a very ugly deformity. We cut away all cicatricial tissue, and then, after healing took place, we undertook a plastic operation, and here is one of the points I want to call attention to. We fashioned a flap, with the pedicle on the neck, and turned it up with the skin side in, but I took the precaution of putting a mouth gag into the mouth, holding the mouth wide open and calculating the flap to fit the gap with the mouth wide open. I sewed the flap in so that when the jaws were brought together the flap would wrinkle up into a fold. The results was very good, indeed, so that after healing was complete there was no tension on the flap with the jaws open as widely as possible.

Another point is the covering of the external raw surface with Thiersch grafts at the time of putting in the flap. By this plan the wound is more quickly healed and there is less subsequent contraction of the flap.

DR. R. HUNT, of Shreveport: Of course, this subject interests the surgeon. A young woman from Northern Louisiana came to Shreveport who had suffered with mercurial ptyalism thirteen years previously. The jaws were firmly fixed. The upper gums had extended over the upper teeth, the lower gums over the lower teeth, and the upper and lower gums had united. She had been in the remarkable condition of not being able to open her mouth for thirteen years. We thought quite a bit about the condition before we attempted to remedy it, as we hadn't much experience in plastic work. We have a case occasionally but not often. The course pursued was this: I introduced my fingers under the lip, and found that the gums had united to the cheeks. I dissected these loose with my fingers, and what I did not do with my fingers I did with a periosteal elevator. Then I dissected the gums from each other with the same instrument. I did not know whether I had ankylosis at the articulation or not. However, I pursued the same course that Dr. Parham used. I got a screw mouth gag, extracted two teeth in front, and gradually put pressure on at that point. I removed a great deal of scar tissue on the inside, leaving the skin on the outside intact. I did this at intervals of about four weeks, and got a pretty fair result, and I feel that we improved the condition greatly. I made no scars on the outside at all. I simply removed the redundant cicatricial tissue from the inside of the mouth, though I would not have hesitated to remove more had it been necessary. She can now really chew. As we get older and do more surgical work, I think we get bolder and in this particular case I tested the jaw with the mouth gag as much as it could stand without breaking.

DR. ALLEN in closing: Regarding anesthesia, in nearly all of these cases Schleich No. 1 was used. In some few the Braun solution was used, where very extensive infiltration was necessary. As you know, this is made up of one-fifth-one per cent solution eucain B and four-fifths normal salt solution. Particularly in those cases where the work is about the mouth a general anesthetic is bad, if you can possibly do it with local anesthesia, because in recovering from a general anesthetic your patient will vomit and may tear the parts. Of course, care must be used in certain cases. Too much infiltration the tissues won't stand, particularly if already diseased or scarred. So, in the majority the anesthesia was Schleich.

I thank Dr. Parham for his remarks. I have learned a great deal from witnessing his work both when I was a student and from talks with him since.

We put Thiersch grafts on some of the raw surfaces.

Dr. Hunt's procedure was very interesting, and we resorted to that in this case, but it failed. The anklosis there had become ossified. There were great masses of bone that could only be divided with the rongeur, and that held these jaws together on both sides. We first dissected it loose. Other procedures were thought of and attempted, but the one that succeeded was the one I reported.

Technic of Supra-pubic Prostatectomy.*

By S. P. DELAUP, M. D., New Orleans.

The best route by which to perform prostatectomy is still a mooted question. In England the supra-pubic route is, and has been, the more popular. In France, Germany and especially in the United States, its place of origin, the perineal method has been more largely used. There are signs, however, that the high operation is gaining in favor, and this reversal of opinion is due to Freyer. Though the first complete supra-pubic prostatectomy was done by Eugene Fuller, of New York, in 1894, it is Freyer's remarkable success that has carried conviction to the most sceptic.

This operation if not always easy is at least simple and rapid, but calls for the skill and experience of the genito-urinary surgeon in the many and minute details of the post operative treatment. Preference should be given to spinal analgesia as these cases are mostly in old men depressed and in a septic condition. I have used it in all of my cases save one, and have no reason to regret it.

The bladder is first washed out, and then filled with boracic solution. The soft rubber catheter used for this purpose is left in the urethra. A vertical incision $2\frac{1}{2}$ to $3\frac{1}{2}$ inches in length is made through the middle line, the recti muscles are separated from one another, the prevesical fat, if any, is pushed aside, and the fold of the peritoneum, if present, is pushed upwards out of harm's way. Two cat-gut sutures are then passed through the bladder wall to support it during the subsequent manipulation. The bladder is now incised between the two supporting sutures, and

* Read by title.

through the opening an index finger is quickly introduced to determine the condition of the prostate, its size, shape, and consistence; a search is also made for stones. One or two fingers of the other hand in a rubber glove are now introduced into the rectum, thus bringing the prostate between the two hands, the upper one being in actual contact with the gland, while the lower hand is only separated from it by the thickness of the rectal wall.

Now comes the step which is the key to the operation of total enucleation and which will decide whether the enucleation will be difficult or not. Various instruments have been suggested to make the initial line of cleavage, some have advocated scissors, others the scalpel, and still others the index finger armed with a ring scarifier—these are utterly unnecessary. The finger alone is amply sufficient, provided its nail is kept long and sharp.

The shelling out is commenced by scratching through the mucous membrane a little behind and slightly to the right of the summit of the prostatic enlargement on its vesical slope, in other words, a little beyond the line of demarcation between the urethral and vesical mucous membrane. It has been proved that this portion of the enlarged prostate is covered merely by mucous membrane, so that when this is scraped through and detached the capsule of the prostate is at once reached. The finger detaches first the lateral surface of the right lobe, then the lateral surface of the left lobe; a single sweep of the finger in simple cases accomplishes the enucleation, the cleavage being made easy by help of the rectal finger. Continuing the separation, the finger now sweeps forwards like a hook to dislodge the anterior urethral projections of the two lobes. This is the most tedious part of the enucleation, inasmuch as by this time in difficult cases the finger becomes cramped.

The enucleation is concluded by a deepening on all sides of this cleft until the lower part of the prostate is reached and the finger comes in contact with the urethra at the apex of the gland. The urethra is here usually torn and the adenomatous mass which now lies free in the bladder, is removed through the supra-pubic opening. By this method of enucleation the finger makes a complete sweep around the prostate which is removed entire and is crossed by the prostate urethra.

On examination of the enucleated prostate the amount of injury

to the urethra can be determined. If removed in one mass the prostate is usually pear shaped with the small extremity corresponding to the neck of the bladder, and the larger extremity formed by the rounded lateral lobes. The urethra is torn flush with the small extremity of the prostate and is seen to cover part of its anterior surface.

The enucleation having been done, the bladder is flushed with hot boracic solution injected through the urethral catheter. This is sufficient to check any hemorrhage if it occur; if not, Freyer recommends pressing together the opposing surfaces of the prostatic pouch by the points of the fingers in the bladder and rectum respectively. It is well to anchor the sides of the bladder wound to the deep layers of the rectus sheath and to reduce the bladder wound by cat-gut sutures, leaving room enough for the introduction of the drainage tube.

Inasmuch as the great majority of operated cases suffer from chronic cystitis with retention and infection and frequently with calculi, ample drainage must be provided for to combat against blood clots and infection. Hence Fryer devised a stout rubber drainage tube, 4 inches in length, with a lumen of not less than $\frac{1}{2}$ inch in diameter; with two large holes, or eyes, as near as possible to the vesical end of the tube on opposite sides of it. This drain of unusual size is introduced through the supra-pubic opening into the bladder, just sufficient for the side openings to lie completely within its cavity, and secured at the pubic end of the opening. On no account should it touch bottom or come in contact with the newly formed cavity. It is best to secure it to the skin by two sutures. Not only will this tube maintain thorough drainage, but it will afford an easy outlet for blood clots and a ready way to tampon with gauze strips any bleeding cavity.

The edges of the abdominal wound are now brought together around the tube by silkworm-gut sutures and a small gauze drain is inserted at the lower end of the wound to drain the prevesical space. Before withdrawing the catheter and applying the dressings the bladder is once more irrigated, in order to remove clots and ascertain that drainage is quite free.

Fryer has lately recommended a celluloid hypogastric urinal to carry the urine from the hypogastric drain. A simple syphon drainage tube attached to the large drain from the bladder will

answer just as well, I believe. The operation is complete, the dressings of gauze and cotton applied and held in place by a binder. These should be changed every four or five hours when saturated with urine.

The bladder is irrigated every day with warm boracic solution by inserting the nozzle of the irrigator in the drainage tube; at first under low pressure. After four days the drainage tube is removed and a smaller one passed through its lumen before removal. The latter remains in place one week longer, after which irrigation through the urethra may be begun, and the fistulous opening allowed to close. At this time the irrigating solution when injected through the supra-pubic opening will pass through the urethra as rapidly as it enters the bladder. About the third week urination by the normal channel is usually established. It is not unusual for the supra-pubic sinus when apparently closed to occasionally open and discharge urine, especially at the time of urination. Before the patient is discharged it is advisable to pass a steel sound to ascertain the condition of the urethra.

The Value of X-Ray in the Diagnosis of Urinary Calculus.

By L. B. CRAWFORD, M. D., New Orleans.

A great many surgeons are rather prone to underestimate the use of the X-Ray in the diagnosis of urinary calculus; to me it is a subject of great interest, and in a majority of cases a very valuable and certain asset to our diagnosticating armamentarium.

As Fenwick has said, "Before the routine employment of expert radiography in cases of renal pain the diagnosis of stone in the kidney and ureter was merely speculative. The clinician was rarely certain as to whether a stone was present or not, or if he was assured in his own mind that a calculus did exist, he could not say whether it was imprisoned in the kidney or whether it had passed into and become arrested in the ureter, so similar are the symptoms of stone in either position."

In each case which presents itself to us, however, we should always bear in mind the clinical symptomatology, the cystoscopic findings and the X-Ray interpretation, then if no diagnosis can

be arrived at we can more justifiably excuse ourselves and rather blame nature for our shortcomings.

The clinical picture, of repeated and varying attacks of colic, the long continued finding of pus and especially blood in the urine, the passage of renal sand and in some cases of fragments of calculi themselves, are certainly characteristic, and one is strongly tempted to accept these as conclusive. But as sure as we do we are making a grave error; pain may lead us astray, for not infrequently has the stone been located on the opposite side complained of. In one of my cases I can distinctly recall this fact. The occurrence of pus and blood may arise from many causes, notably, tuberculosis, malignancy, and infections from surrounding adhesions, in one case where the appendix was firmly attached to the right ureter. All this proves to my mind that the clinical symptoms taken alone are practically worthless, but in conjunction with our other means of diagnosis they sometimes prove invaluable.

Then with the cystoscope and the ureteral catheterization, we indeed have a staunch friend. Much has been written lately on which is the more valuable aid to diagnosis, the cystoscope or X-Ray. The genito-urologist has often claimed that he could discard the X-Ray in calculi below the kidney, and on the other hand the X-Ray expert has equally declared that he could do the same with the genito-urologist in similar conditions. But how often do we find that a picture taken of a ureter with a styleted catheter in situ is of inestimable value in clearing up the correct interpretation of suspected shadows.

Fenwick distinctly states that in most of the pelvic stones characteristic changes are produced in the ureteral orifices, so also do characteristic changes appear when the stone is in the ureter. Bransford Lewis takes exception to this statement, however, and says that in a majority of cases these distinctive ureteral orificial changes do not occur and that a healthy looking orifice does not exclude the possibility of trouble above.

In some instances when the stone is formed of uric acid solely, or when the stone is very small, the arrested catheter will tell more than the negative. So why not take a more broad minded view of the situation and say rather that a combined use of these methods will lead us to a clearer knowledge of our patient's condition?

Many causes have been given for the formation of urinary stones, infections, heredity, certain waters and foods, gout, rheumatism and spinal injuries. Meckel has even described a stone producing catarrh. But I think infection stands at the head of the list and the colon—typhoid—gonococcus, staphylococci are the most common offenders.

Leonard has said that calculi in the ureter are more frequent 3 to 2. In 50 per cent of cases there are single stones. The size of these calculi vary a great deal; some get to weigh pounds, and then again others are very small and will hardly cast a shadow. Frequently something can be learned from the shape of the stones; bladder calculi are usually large, smooth and there is no sharp contrast to their shadows cast; a stone in the ureter is generally oblong and sharply outlined, and a renal calculus is quite frequently well outlined, and very often shows projections which jut out into, and block the calices.

The chemical formation of a calculus is important as regards its shadow producing qualities. Urate and uric acid cast but slight shadows, but happily these are very rare and are seldom found in their pure state, but are usually in combination with the oxalates and phosphates—much better shadow casters. The oxalates produce the best shadows, then the phosphates.

The preliminary preparation of the patient is of great importance in the taking of a good clear negative. No solid food should be taken for at least twenty hours before the examination, a brisk saline given the night previous and a copious colonic flush in the morning. It is an established fact that all conditions being equal, pictures taken on the cadaver will show better detail than those taken on the living. This can probably be explained by the absence of peristaltic action of the intestines and also because of the immobility of the diaphragm.

Given two people of equal weight, one with fat flabby abdominal walls, the other muscular, it was long thought that the muscular subject would take the better picture, because the fat globules in the other would tend to diffuse the rays. But the belief now is just the other way. Dr. Carmen, of St. Louis, told me he was no more afraid of the fat subject, but rather feared the very muscular one. As an example, he asked me how many very good bone detail negatives of femurs had I seen in muscular patients, and I

must confess I was duly impressed, but I must say that my smile is more likely to broaden if the patient is not too fat.

After becoming familiar with your coil and tube, you can soon learn to take good skiagraphs, but a great deal more difficulty is experienced in correctly interpreting these negatives. This takes great experience and only is the expert field reached after thousands of interpretations have been made. I say negatives, for in no instance should a reading be made from a print, because much is lost in detail in the making of a print. I have in mind an example of a wonderful interpretation of a case: Fenwick, who has examined thousands of negatives, was shown one of a young man reported to have renal calculi. He not only said that there was one large oxalic stone blocking the calices at the upper pole, but there were also six smaller stones in the lower pole, and that the extreme upper end of the kidney was cystic. He drew a diagram of what he hoped to find, on the board, and after nephrectomy a photograph of the actual kidney showed an almost counterpart of his sketch. Another example of a wonderful interpretation was that made by Carmen, of St. Louis, in which he diagnosed appendicial coprolith. I had the good fortune to see these negatives. His first negative showed an oblong shadow in the line of the right ureter. He thought this undoubtedly a calculus, because of the clinical symptoms, but to make assurance doubly sure he took another negative a few days later and to his astonishment the same shadow had moved three inches to the right. His conclusions were that it was a very long appendix with concretions and probably bound to the ureter. Operation proved this to be correct. On the other hand, Stover reports how a physician came to him for his advice in a case reported to have renal calculus. He was shown a negative with a large, black, light struck spot just over the kidney region. This spot was taken for a large spiculated renal calculus. Such an error is one of interpretation; the Doctor did not realize that the denser the object the more obstruction offered the rays and therefore the lighter it would appear on the negative.

In each case before an opinion should be given the entire urinary tract should be taken. This can be done with five plates, one for each kidney, one for each ureter and one for the bladder. Of great use here is the compression diaphragm as first brought out by Albert Schoemberg, for this enables us to use compression and

thereby approach the kidney. It also immobilizes the parts to a great extent, and cuts out all vagabond rays which tend to diminish detail in the negative. This is a point which I now particularly bear in mind because in a case sent to me of suspected vesical calculus, I demonstrated a bladder stone. The next day the patient and doctor returned for a picture of the right side, which was taken, and a very good negative showed nothing suspicious. The left side was not taken, because he had never suffered from that side, and because I did not insist upon it as I undoubtedly now would do. The bladder stone was easily removed, but the patient did badly and some time later a right nephrotomy was done for suspected pus, but nothing found, and only after a subsequent operation on the left side, demanding a nephrectomy, was the trouble found—a stone and a resultant pyo-nephrosis. Had I taken a picture of that side I undoubtedly would have saved the patient an operation and the operators a great deal of anxiety.

Not only should the whole urinary tract be taken, but if a suspected shadow is found in one or several of the negatives this shadow should be confirmed by taking at least one or more confirmatory negative of the same region. Then if still in doubt a picture taken with a styleted catheter in the ureter will usually clear up the diagnosis.

The question now arises, can a negative diagnosis of calculus be made? Leonard has said "The accuracy which has been demonstrated for this method by clinical experience has led me to hold that the negative diagram where proper technique and skill have been employed and a satisfactory plate has been obtained is of such accuracy that surgical interference with the purpose of detecting the calculi is unnecessary and not justifiable." Several observers have reported the following percentage of correct diagnosis.

		cases	correct
Kummel & Rumpel,	1903,	18	100%
Smith & Bevan,	1904,	27	96%
Leonard,	1907,	356	97%
Brewer,	1908,	57	78%

A satisfactory plate should show

1. Structure of last two ribs;
2. The lateral processes of the vertebræ to their extremities;

3. It should show the border of the psoas muscle and I think we could be more certain if the outline of the kidney could be shown.

Now, we come to the conditions which so simulate calculi that much difficulty is experienced in arriving at a correct opinion.

1. *Calcified Glands.* These may present themselves over the renal, ureteral and bladder regions, and, though quite often they have characteristic appearance, they not infrequently give rise to great difficulty in differentiating them from calculi. But with the clinical symptoms, the skiagram with an opaque ureteral bougie in situ, and the stereoscopic radiogram, we can usually reach the correct conclusions.

2. *Phlebolith.* Generally these are multiple, and not uncommonly occur in the pelvic and uterine veins, but when single they cause great confusion, especially in a case where we suspect a single stone in the lower ureter.

3. *Caseous Kidneys,* in which there occurs a lime salt deposit. This condition may give rise to quite a dense shadow, and cause no little trouble in differentiation.

4. *Defects of the Plate and Defective Developing.* This can usually be cleared up by taking another negative.

5. *Foreign Bodies and Concretions In the Appendix.* Orten tells of a case where nine shot were shown in the appendix. Seelig's case of appendicial coprolith: I saw these negatives and I can well appreciate how the diagnosis of ureteral calculus was made. The shadow was quite sharp, oblong and in the line of the right ureter. The operation disclosed the true condition, and the appendicial adhesions to the ureter gave rise to the clinical symptoms.

6. *Certain Drugs, Notably Bismuth.* Ball reports a case in which an erroneous diagnosis of ureteral calculus was made in spite of an excellent radiogram taken with an opaque bougie in situ. Four months previous to examination four stones had been removed and an obstinate fistula followed. Bladder examination revealed right ureter occluded and not functioning, left normal. Radiogram revealed shadow at upper right sacro-iliac articulation, and second picture confirmed this finding. As a precaution an opaque bougie was passed into the ureter and a radiogram showed shadow exactly over ureter. Operation revealed nothing. Ureter probed up and down. Bladder examination after showed nothing.

Gentlemen, these are the cases that cause trouble; the only other procedure that could have been done was perhaps to have taken a stereoscopic radiogram and probably the shadow would have been on a different plane to the ureter. |

In my technic, I use a Scheidel coil, twenty-four inch, with Walter's Induction. This enables me to either lower or increase my resistance in order to meet the demand of my tube. I prefer a medium tube of about 4-in. spark, or by Walter's Penetrometer No. 4. Volts used are 90-96. Amp. 15-20. Milliampere 6-8. Exposure 1 minute. Developer, Metol-Hydro-Chynon.

In our duty to our patients we must use all the means possible to arrive at a correct diagnosis, but it seems to me that when a good negative is obtained we can trust the X-ray to not only tell us how many calculi are present, but their exact location.

Mrs. C., *aet.* 35. Has been suffering from vague bladder attacks for last seven years. First seen in May, 1908. Had typical renal colic. Urinalysis revealed pus and blood, and repeated examinations showed patient never free from pus and blood. These attacks occurred about every month. Finally cystoscopical examination by Dr. Hume revealed bladder normal; right ureter slightly congested and catheter showed pus and blood flowing from right kidney; left not catheterized. X-ray examination revealed large clover-shaped stone in right kidney and one in right ureter, and a very suspicious shadow in left kidney.

Operation: Kidney exposed by oblique incision from 12th to ant. sup. spine. Kidney delivered and palpated. Stone removed from pelvis by L-shaped incision. Stone in ureter palpated and slipped up between fingers and removed through incision in ureter about 2 inches from pelvis. Uneventful recovery. Urine examination revealed pus and blood and colon bacilli present, but these are gradually diminishing. Radiogram shows right side no shadow, but left shows shadow in left kidney.

Mrs. W.—Patient of Drs. Cocram and Clark: Long period of roving pain on left side and pus and blood in urine. Cystoscope revealed normal bladder, orifices normal. Catheter would not go up into right pelvis; left ureter normal. Radiogram taken showed shadow in what I took to be the dilated ureter, but I then thought the stone too large for a ureteral calculus. Radiogram taken of left side with stylet in ureter showed nothing.

Operation. Stone found in pelvis of right kidney. Kidney very low down. Recovery uneventful.

Mr. S.—Patient of Dr. Oechsner: Sent to me for bladder stone. Radiogram revealed distinct shadow in bladder. Patient returned for picture of right side. Refused picture of left side, saying never had pain in that side. My error in not insisting on it.

Operation: Supracystotomy. Stone easily removed. Patient did badly. Great quantity of pus and blood in urine. Cystoscopy revealed pus flowing from right side. The left orifice could not be reached. Second operation for pyo-nephrosis of right side; nothing found. Third operation, on left kidney, revealed stone and pyo-nephrosis. Patient finally recovered and is now in perfect health.

Miss W., *act.* 21. Began to have urinary disturbances in March, 1906, and these continued for one year, and in June, 1907, an abscess was opened, freeing a great quantity of pus. Pus coming from bladder. Fever began again and original incision was enlarged and one made behind. Examination revealed trickling discharge of clear fluid from opening at lower end of incision scar behind. March 30, 1909, radiogram taken of right kidney region and shadow of what was supposed to be a stone in kidney. Second negative showed same shadow. Operation showed greatly degenerated kidney, obliterated ureter, and urine, because of constriction, was discharging in the loin. No stone found. Ureter explored down to bladder. Patient recovering.

DISCUSSION.

DR. S. M. D. CLARK, of New Orleans: I was glad to hear Dr. Crawford's excellent paper. He recently helped us very much in reaching a diagnosis in a renal stone. The case was one that came to Dr. Cocram with a previous diagnosis of Bright's disease. The Doctor referred it to me for a cystoscopic examination and ureteral work. I made a cystoscopic examination and found the bladder negative, and then catheterized the ureters. On the left side there was perfectly clear urine, and on the right side the urine contained blood and pus. The interesting point in this case was that this woman had a stone on the right side, but complained of pain on the left side. By this method of catheterization we then knew that

we had one good kidney and one crippled kidney. I inserted these catheters again for Dr. Crawford with a stylet left in one, and he took the pictures and found a stone in the right kidney, although her pain had been on the left. Dr. Cocram operated on this case and removed a stone from the pelvis of the kidney, and her symptoms have all disappeared. A few days ago I catheterized this ureter again and found pure urine.

I think an important point brought out by Dr. Crawford is that although the X-Ray has its points of value, still it is well to combine the various measures at hand before reaching a conclusion; that we not only should employ the X-Ray, but the cystoscope and the ureteral catheters. I recently heard a very excellent discussion of this subject in St. Louis, in which Dr. Bransford Lewis took that view, that we should not put our sole trust in the X-Ray, but use it as a link in the chain, combined with the cystoscope and the ureteral catheters

DR. JULES LAZARD, of New Orleans: In the first edition of Morris's book on diseases of the kidney and ureter he says that he does not pay much attention to the X-Ray, or that it has not been of much use to him. In the second edition of that book his view is somewhat modified. There is a condition in which the X-ray will not help you at all. In 1905 I saw a man who had had a typical colic—that is, what doctors are advised to base their diagnosis of stone in the kidney on—and I made a diagnosis from the character of the pain. I had a doctor take a very careful X-ray examination, and the kidney did not show any stone at all. The man recovered from his attack of colic. Then he complained of pain in the region of the bladder. I introduced a Thompson searcher, thinking possibly that this stone might have passed into the bladder, but there was a negative result. He continued to complain of pain, and I then put in a Nitze cystoscope, and found a stone about the size of the little fingernail deep in the bas fond. I did suprapubic cystotomy and relieved him of the stone. This is a case evidently where the stone passed from the pelvis of the kidney down the ureter into the bladder. Of course, when we came to take an X-ray of the kidney some two or three days afterwards his stone was in the bladder and gave no results. This was brought very forcibly to our attention in an article by Carl

Beck in the *Journal of the American Medical Association* last year.

I also have a stone from the kidney which gave very positive findings. This stone filled the pelvis of the kidney and extended up into the calices. The X-ray showed it very clearly. This case was nephrectomized. The stone in the wet state weighed 346 grains.

DR. J. A. DANNA, of New Orleans: I want to congratulate Dr. Crawford on his paper. I want to say a word in favor of specialization. We do a great deal of this kind of surgery in the Charity Hospital, and I must say that in the past we have relied very little on X-ray examinations and X-ray pictures in kidney work. And it gives me a great deal of pleasure to find that our X-ray specialists, if I may so class Dr. Crawford, have gotten the thing down to such a point that they can give us a pretty accurate idea as to whether there is a stone in the pelvis of the kidney or in the ureter in 96 per cent. of the cases. I want to say that heretofore I would operate on a case if I thought that patient had stone in the kidney, whether the X-ray findings were positive or negative, and that on several occasions I have operated on patients for stone in the kidney and did not find any. For this reason I am glad to see that this work has progressed to such an extent that Dr. Crawford has told us, and I congratulate Dr. Crawford on his work, and hope that his work may become more generalized and that all of our X-ray specialists may become just as perfect as the men who get 96 per cent.

DR. CRAWFORD, in closing: I rise gladly to answer Dr. Danna. I am not an X-ray expert, by any means. I like the work. It is very interesting, and, as Dr. Lazard has said, there are several other men in the city that do excellent work, and who rank very creditably with the experts up North. The men that get 96 per cent. are true experts. They do nothing but this work.

The point I made in the paper, and which I again wish to make, is that you should not rely altogether on the X-ray, but combine your clinical symptoms, your bladder examination and your ureteral catheterization, and if that is done I think we can very readily arrive at a correct conclusion.

Report and Presentation of a Case of Substitution of Muscle for Tendo Achilles.

By A. C. KING, M. D., New Orleans.

This is a simple little case, but one so full of interest to me that a short report of it might not be uninteresting to you. Nothing original is claimed, but the case is presented for what it is worth.

E. D., aged 5, on May 26, 1908, while wading in a very filthy street gutter, stepped on a broken bottle in such a way as to completely sever the right tendo Achilles, about three-quarters of an inch above its insertion into the os calcis. The cut ran obliquely, thereby giving a little more surface for approximation. Dr. M. J. Manent was called to attend, the writer assisting. Considerable time was spent in making preparations for suturing the divided ends, and the wound, foot and leg were given extra attention in order to secure absolute asepsis. Much filth, dirt and several blades of grass were removed from the wound, some of this mixture having followed the muscle end as it retreated into its sheath. We were especially careful in our process of cleansing, and certainly had a right to expect a more pleasing result than we obtained.

The ends of the tendon were nicely approximated and sutured with No. 2 chromic gut, well placed; the skin drawn together and sutured, sterile dressings applied and the foot and leg encased in plaster with the foot in extension, thus relaxing the muscle and tendon. It may have been a mistake to omit drainage, but so sure were we of our precautions that no drain was employed. At any rate, we had pus, and plenty of it, and for a long time. A regular tendon and tendon sheath infection resulting in the complete destruction of about two and a half inches of tendon. After healing had occurred, which was not complete until late in June, the absence of tendon and loss of function could be easily noted.

On July 4 at the N. O. Sanitarium we made an incision extending from the heel half way up the leg, searching carefully for a possible fibrous reproduction which might in time give a useful foot. Nothing was found, however, except a little scar tissue in the old field of suppuration, and having determined that this was of no use it was dissected out, at the same time loosening the muscle

end of the tendon sufficiently to permit efforts at approximation. This failing, other methods were considered.



Bridging over with silk, half cross section and ordinary tendon lengthening promised nothing. Bridging with silk or silk-worm gut promised most, but it seemed that if silk would do, muscle fiber would do better. We then decided to try muscle, and proceeded in this manner: The gastrocnemius muscle was split on one edge, then a transverse cut made, thus freeing enough muscle tissue to bridge over the defect. This

was turned down in such manner as to snugly fill in the gap, and the lower end sutured to the heel end of the tendon. Wound was then closed without drainage, dressings applied and plaster applied with the foot in extension.

Cast was removed in ten days, skin sutures removed, cast slipped on again and at intervals taken off for massage and cleanliness. About September 5, or sixty days after the secondary operation, it was considered safe to permit walking, and by the 15th this little fellow was skipping and hopping about in great style. The final result is all that could be wished.

Post Operative Insanity.

By THOMAS P. LLOYD, A. B., M. D., Shreveport, La.

Post operative insanity is a sequel to surgery for which there is no prophylaxis. It may follow any operation upon any organ of the body. It may follow non-infected as well as infected wounds. It may follow immediately or remotely. It varies from the most transitory forms of mental aberration to violent mania.

The question naturally arises, can an individual become permanently insane after surgical operation, infection or shock without having a predisposition to mental infirmity? I have not been able to trace a single case of permanent post operative or post parturient insanity in which there was not a history of some form of neurosis antedating the outburst. The percentage being so small is very good proof that there must be some inherent something within the brain cells which causes this abnormal action.

And, again, there is no characteristic type of insanity following surgical operation, infections or shock. Cases are reported in which the introduction of a speculum or catheter have caused insanity. A certain small percentage is undoubtedly due to toxemia per se. Auto-intoxication is ascribed as one of the causes of insanity. We know the effects of toxins on the blood. Toxic insanity may follow any form of infection, even without operation or shock, as post typhoid, for example.

Dr. W. F. Kuhn, *Journal A. M. A.*, April 11, 1900, says: "Too much evidence has been produced in favor of the theory of auto-intoxication and a toxemia to be rejected without investigation. That the condition known among American authorities as primary dementia, and by the Germans and French as dementia precox, is the result of toxemia seems to be fairly well established. That acute and agitated melancholia and mania are caused by profound changes in the metabolism of the body by some toxic agent an examination of the blood seems to justify."

There must be some medium circulating in the blood which has an affinity for the brain cells, causing abnormal activity without pathologically altering the cell substance.

Organic insanity does not follow these cases—paranoia, paresis, etc.

Case. By Dr. M. M. Bannerman, Grand Cane, La.

Miss H., age 36, resident of Louisiana past eight years, teacher in high school. Strong physique, mentally brilliant, and a hard student and worker. Family history negative.

She has had no previous serious illness. Menstruation began at age of 14; regular, profuse, lasting five or six days, and for past few years invariably ushered in with mental depression and weeping.

During the autumn of 1908 she suffered a 14-day attack of estivo-autumnal malarial infection of quite marked severity. During the winter and spring following she had occasional malarial manifestations of a mild nature and showed a moderate cachexia.

On the night of February 16, 1909, I was called to attend her for a severe abdominal colic, attended with nausea, vomiting and a tendency to constipation; temperature 102; pulse variable, but not higher than 110. I gave morphia for relief of pain and withheld nourishment and purgatives. The pain was of a parox-

ysmal nature, quite intense, and referable to left lower quadrant and to the suprapubic region. During first four days of illness pulse remained less than 120 and temperature 100½. On fourth day pain was for the first time referred to right iliac region and rigidity appeared. Pulse after this day 104-110 and temperature 100-101.

On the tenth day, February 26, Dr. T. U. Lloyd was called in and a large appendiceal abscess was opened and drained. Patient went on the table with pulse 104, temperature 100°, and came off with the same. Four hours thereafter she complained of chilliness, abdomen became distended, countenance pinched and pale, pulse going to 135 in six hours, and temperature 104 2-5°. I at first suspected intra-abdominal infection, called Dr. Lloyd again, ordered anti-streptococic serum, but in a few hours, before serum could be had, pulse came down to 114, temperature 102°. Gave 90 cc. serum, however, and in twelve hours from time of chilliness temperature was 100°, pulse 104, and abdomen reduced two inches in circumference. We recognized this as being a malarial paroxysm and administered quinin freely.

During the next six days succeeding this she seemed to have been rapidly convalescing, when the nurse reported a comparatively sleepless night, symptoms of a "lump in the throat," a much increased urinary secretion and left ovarian pain.

On the seventh day symptoms continued and the patient showed a disposition to talk a great deal, referring to her professional duties, and showing a moderate exhilaration. Subsequently the mental symptoms became exaggerated, when on the ninth and tenth days she became maniacal at times, characterized by great emotional excitement, consisting of weeping (accompanied with profuse lachrymation), laughing, singing and most dramatic behavior, recognizing individuals and things, but utterly unable to reason or be reasoned with.

She often became violent in speech and movement, and I have observed her rhythmically circumduct the forearm for hours with absolutely no spasm in the trunk. Again shrieking, shouting and throwing her limbs about violently. She has been subconscious at all times. During a lucid interval she referred to her strange antics and silly sayings, explaining her inability to refrain from so doing.

Her physical condition is much improved, the abscess having healed.

During the past sixty days she has had five distinct rigors, accompanied with nausea and vomiting, accelerated pulse and elevated temperature. The rigors showed a decided periodicity. A blood examination revealed pigment, but no parasites.

The treatment has been largely expectant; at times morphia or hyoscine, or a combination of them, were necessary to control violent emotion or muscular movement. Quinin has been given hypodermatically, as much as 40 grains per diem. Her mental condition is unchanged.

The case seems to be one of hysterical mania. Monthly hysterical manifestations are observed in her personal history, and the infection from which she suffered produced this result.

The reason I present this case, gentlemen, is on account of the extreme maniacal condition, causing her at times to inflict injury to her best friends. On one occasion she caught one of her attendants by the ear, and it was with great difficulty she extricated herself. In fact, it took the combined efforts of four people to force her to release her grasp. On another occasion, four weeks after the operation, when the wound had about healed, she reopened it by boring her finger into it, causing a fœcal fistula.

This condition I have never seen before. A transitory insanity occurs once in three or four thousand cases: With the Mayos, one in about three thousand; Dr. John Wyeth has had only one case; Dr. J. B. Murphy has never had a case; Dr. Stuart McGuire has had three cases; Dr. Howard A. Kelly has had twenty cases in seven thousand operations—all of short duration; Dr. I. S. Stone has had three cases—one permanently demented.

The great majority of cases of post operative insanity are due to inherent congenital mental instability.

Aside from a predisposition, there is a complex condition due to the action of several variable etiological factors, including: Anxiety before operation, the anesthesia, the shock, the loss of blood, the pain, the injury to nerve trunks, the toxic action of antiseptics, post operative infections, the loss of certain organs which influence metabolism, etc. It is well known that after operations for cataract in old people hallucinatory confusion is not uncommon. Of course, old age predisposes, especially where there

is a senile arteriosclerosis, and it is possible that the stay in the dark room after such operation sometimes plays a part.

Recent reports from this case are to the effect that she is confined in a retreat and as yet has shown no signs of improvement.

As surgeons we should learn to look carefully for degenerative stigmata, and other signs of a neuropathic constitution. And when such a condition is suspicioned we would act wisely by deferring an operation when possible until the patient's state of nutrition can be put in first-class condition and any dispersion of the nervous system overcome.

DISCUSSION.

DR. R. HUNT, of Shreveport: This question of post operative mania is certainly an interesting one, although the condition is not frequent. In an experience of twenty years, eight years of which I served as chief surgeon of the State Hospital in Shreveport, I saw but one case. I think the idea that there is a special predisposition, either in the patient per se or an inherited one, is entirely correct. In the case that I personally saw, the mother was possibly a moral pervert. The patient suffered quite a bit with ovarian trouble. The operation performed on her was a double oophorectomy—a perfectly clean operation, perfect recovery, and a perfect result in every way. She was not only violently affected in the way of vomiting following the anesthetic, but could not sleep, and these two conditions kept up for seven days, and on the seventh day violent post operative mania supervened. I do not think I have ever in my life witnessed such vagaries. I guarded the pulse with strychnin and commenced giving her chloral to produce sleep. I gave her ten grains every two hours, and had to give her eighty grains to produce slumber. Every time she would wake up I would give her ten grains more. I made her sleep for twenty-four hours consecutively, and when she woke up she was perfectly sane.

This is my only experience, but this experience, which lasted three days, was one I never want to undergo again, because of its most distressing character.

I should like to have the New Orleans surgeons who have had more experience discuss this subject.

DR. G. H. MOODY, of San Antonio, Tex. (guest of the society).

I am here to listen, not to talk, but I am impressed by the extreme importance of Dr. Lloyd's paper, not only from a surgical standpoint, but from a neurological standpoint. While any individual surgeon may conclude that there are very few of these cases simply because he has few in his practice, the fact remains that there are really quite a number of these cases throughout the country.

I think Dr. Lloyd's assumption that there is a neuropathic element in almost every case is entirely correct. In fact, I believe it is a fact that there is a neuropathic element in almost every case of insanity that develops. Of course, a nervous defect may not have been demonstrated in the parent, but parents who have contracted syphilis or tuberculosis and whose nutrition has long been bad may transmit an offspring which is degenerate in nature and which is neuropathic.

I think Dr. Lloyd has struck the keynote when he suggests that the surgeon will act wisely by looking carefully for signs of degeneracy in those cases in which an operation is contemplated. Those signs, when one becomes accustomed to looking for them, are easily recognizable, as he suggests, in the form of degenerative stigmata, which, as we know, are anatomic, consisting in the various malformations of the skull and appendages, a narrow and highly arched hard palate, etc., and also physiological stigmata, such as strabismus, astigmatism, the various tics, etc., and not only that, but mental stigmata such as the various eccentricities, peculiarities, migrain, sleeplessness, nervous irritability, instability, and all of those things which combine to make a neuropathic constitution. Now, in those, I think the cases most often developing serious insanity are women about the menopause. I think just at this time it is quite important for the surgeon to be careful as to the physical condition of the individual. As Dr. Lloyd has said, such an individual should be put to bed and given rest for a few weeks, and especially should the elimination be looked after by proper baths, massage, etc. If this is done the surgeon will not only avoid frequent shock psychoses, but those other psychoses which are due to auto-intoxication, etc. I believe if surgeons will notice these things carefully they will frequently avoid embarrassment in the success of an operation and will gain credit from something that they would have lost otherwise.

Chronic Pancreatitis With Reports of Three Cases, Surgically Treated.

By ESPY M. WILLIAMS, M. D., Patterson, La.

As evidenced by the present status of appendicitis, inflammatory affections of the gall bladder—lithogenous and non-lithogenous, gastric ulcer and its sequelæ, and gastric cancer, surgery has made great and important advances during late years in the treatment of disorders of the intestinal tract and its tributary organs in many diseases formerly thought to belong only to the internist. Until Mayo-Robson, in 1900, brought forth so strongly the subject of pancreatic disease before the profession, the frequency with which the diseases of this organ occurred, in all of their forms, was very generally underestimated. In this instance, as in many others, surgery—both experimental and clinical—has perhaps been the greatest factor, not only in pointing out true underlying conditions, but in establishing the existence of disease entities before unknown and unsuspected.

We were somewhat familiar with acute pancreatitis, hemorrhagic and suppurative, considering the disease, however, as more of a curiosity than otherwise, whose diagnosis was to be confirmed at autopsy and the probability of whose cure was entirely problematic. So far as the chronic forms of the disease were concerned. Osler, in an edition of his "Practice of Medicine" for 1899, devotes two short paragraphs to the subject; which goes by way of illustrating the slight degree of importance placed upon it at even so late a date. The remote anatomical position of the pancreas, situated as it is in a locality most inaccessible as compared to other organs, together with the fact that knowledge of its functions was not of an exact sort, and, consequently, the variations from normal of these functions could not be definitely placed, have without doubt been largely responsible for this delay in the elucidation of its affections; and until the close relationship between gall stones and pancreatitis was established the diseases of this gland remained among the most mysterious and unsearchable.

The subject was first discussed intelligently by Reidel in 1896, but, as has been said, it was not until 1900 that it was given its proper place by Mayo-Robson; and there is no doubt but that to-day, among the greater number of practitioners, but little is known

of the disease in its chronic form. The matter has recently been under fire—if we may so term it—among the surgeons of the North and West, and it is with no little gratification that we find cases in our records which enable us to place the subject before this society for discussion.

CASE 1. Mrs. W. J. T., aged 37 years, white, married, mother of two children, was admitted to hospital August 5, 1908. She complains chiefly of large, loose stools (diarrhea, she calls it), indigestion and “bloating” of the abdomen. She has been sick for three years in this wise, the condition gradually growing worse.

The family history is good.

Personally, the patient had typhoid fever seven years ago. With this exception her health was excellent until marriage and the birth of the first child; since which time she has been in more or less ill health of the sort due, as we make it, to overwork, poor food, worry and unhygienic surroundings, never during this time, however, having suffered any serious illness. Three years ago she had an attack of “cramps,” radiating throughout the entire abdomen, and accompanied with slight diarrhea. This attack did not last any great time, and responded to home remedies. From time to time after this the attacks of cramps returned, always associated with diarrhea, and the patient suffered troublesome indigestion for the first time some four months after onset of trouble. The seizures were at first infrequent, the diarrhea never profuse, and there was no temperature at any time. Between the attacks she felt pretty well. Constipation existed except during the seizures of pain. The condition progressed in severity, flatulent indigestion became very troublesome, and noticeable impression was made upon her weight and strength. One year ago she suffered a more than usually severe attack of pain, which was at this time rather definitely localized at the appendiceal point, and was accompanied by slight rise of temperature and vomiting. My colleague, Dr. Roussel, who attended her at this time, was able to make out a smooth and rounded mass, movable, at that point. The attack subsided within 48 hours of its onset.

Status Presens: Patient subsists now chiefly upon a diet of crackers and milk, with an occasional soft egg. Even this diet causes at times symptoms of severe indigestion. Flatulence is constant and very disturbing. There is loss of appetite. There is

slight epigastric pain always present, occasionally radiating to the right. She is worried daily by what she calls a diarrhea, occurring only in the morning hours and consisting of from five to eight large stools. She has had occasional fleeting pains under right shoulder blade. Nausea and epigastric fullness come on invariably after she partakes of nourishment, usually within an hour therefrom; she never vomits her food.

Physical Examination. A small, slight, emaciated woman; height, 5 feet 5 inches; weight, 96 pounds. There is a slight grade of anemia. The tongue is furred in spots, fissured and dry; teeth in good condition, superficial lymphatics normal. The heart and lungs are normal. Urin-analysis shows S. G. 1023, dark amber color, free from albumen, sugar or casts. Examination of the abdomen reveals a general visceroptosis of moderate degree. There is marked abdominal distention, due slightly to the ptosis, but principally to the presence of gas. The abdominal walls are very thin and the outlines of the stomach and intestines can be plainly seen, the latter in active peristaltic motion. On palpation the edge of the liver is two inches below the costal margin, but the organ is normal in size on percussion. Deep pressure in the epigastric region elicits great sensitiveness; pressure under the liver and over the gall bladder causes sharp pain.

The stomach secretion is normal after test-breakfast. The stools are large and bulky, pasty and homogeneous in consistency. In color they are grayish yellow. After standing, free fat is visible in good quantity.

A diagnosis of chronic cholecystitis, possibly with stones, and chronic pancreatitis was made.

At operation the gall bladder was found situated two inches below its normal site. The organ was slightly enlarged and its walls thickened, and surrounded by firm adhesions, a point about the size of a twenty-five-cent piece only showing on the fundus. The head of the pancreas was slightly enlarged and felt harder than usual. There were no stones present in the bile tract. After freeing adhesions the gall bladder was drained to the surface, suturing to the aponeurosis to insure drainage for sufficient time. The entire operation occupied 45 minutes, and the patient was sent to her room in good condition. The wound drained for twenty days. History subsequent to operation is noteworthy only from the point of

view of the rapid recovery from all the unpleasant symptoms with which she was previously troubled. She is at present perfectly well.

CASE 2. Mrs. A. B., white female, aged 45 years, married, native of Louisiana. Patient came under our care October 14, 1908, complaining chiefly of chronic diarrhea and indigestion of three and one-half years' standing.

The family history is negative.

Personal History. Up to onset of present illness she has always been a very healthy woman, having suffered occasional attacks of malarial fever, and one severe attack of bronchitis eight years ago. During the past four or five years she has been gradually failing in strength, suffering occasionally with indigestion, but it was not three and one-half years ago that the first notable symptoms of the present condition occurred. This came on with occasional, rather frequent, attacks of loose bowels, unaccompanied at first with pain or any other discomfort, and seemingly without cause. After a certain period her discomfort from indigestion, which had been previously infrequent, became more frequent, and she began to lose in weight and strength rapidly. At no time has she had any great amount of pain; during the past year there has gradually developed a constantly increasing sense of epigastric fullness and discomfort, with occasional fleeting pains in the upper abdomen and a feeling of general abdominal soreness. The diarrhea has never been profuse, being limited usually to the early hours of the day, and the stools never being watery in character. She had been constantly treated medically during all of this time, with relief of symptoms occasionally, but never lastingly.

Status Presens: Patient has now almost complete anorexia, eating her liquid foods because of the necessity for them. Indigestion is constant, no matter how ordinarily digestible the food taken. She is now suffering with frequent slight attacks of upper abdominal pain, and the bowels move from four to six times every morning. She has lost 30 pounds, according to estimation, in the past two years. She looks quite sick.

Physical Examination: Height, 5 feet 4 inches; weight, 90 pounds; dark complexion; face is pinched and skin rough. There is a mild grade of anæmia, and considerable emaciation. The tongue is rough, furred and fissured. Teeth in good condition. Examination of the heart reveals a soft mitral murmur, compensa-

tion, however, being good. The lungs are normal. Urin analysis shows S. G. 1018, negative for albumen and sugar, and a few hyalin casts. The abdomen shows a slight degree of enteroptosis. The spleen cannot be felt; the right kidney is slightly movable. There is tenderness over the midline in the epigastrium, but none over the gall bladder.

The stools are very bulky, grey in color, homogeneous in consistency, and contain free fat in large quantities. The diagnosis of chronic interstitial pancreatitis was made prior to operation.

Upon opening the abdomen the gall bladder was found in its normal position. The organ was of about half the usual size, its walls being considerably thickened, and contained about an ounce of fetid black bile. There were no stones present in the gall bladder, nor ducts, and there were no adhesions. The pancreas was about normal in size, but the head of the gland was distinctly, though but little, sclerosed. The gall bladder was drained externally, suturing to the fascia. During operation the appendix came into the field and was removed. It was normal.

Time of operation, 40 minutes. Patient stood the ordeal well, and was off the table in good shape. Her post-operative history is without note. She rapidly regained her appetite and strength, began to put on flesh, and was discharged from hospital on her 30th day. The wound drained for 28 days.

CASE 3. T. C., white male, married, aged 38 years, native of Louisiana, mechanic by occupation. Was admitted to hospital February 12, 1909. His chief complaint, for which he seeks relief, is diarrhea of three months duration.

Family history good.

Personal History: Patient had typhoid fever 17 years ago, apart from which illness he has been free from sickness during all of his life. Present illness began in November, 1908, with an attack of diarrhea of four or five days' duration. This seizure was followed by others at intervals of from three days to a week, at first, the patient feeling fairly well between attacks. The condition has grown rapidly worse, with from eight to ten stools daily and with a rapid loss of weight and strength. He had had no attack of pain up to within three days of seeking relief here, when he suffered a sharp seizure, the pain being located in the right hypochondrium and epigastrium, and passing off spontaneously

after several hours. He has suffered a great deal from indigestion, and there have been always gaseous accumulations, causing disagreeable abdominal distention.

Physical Examination: Height, 5 feet 10 inches; weight, 98 pounds. There is great emaciation and marked anemia. The skin is pasty looking, harsh and dry. He has several sores over the dorsal surfaces of both hands. The tongue is furred and dry; the teeth in fair condition. Superficial lymphatic system normal. The heart and lungs are normal. Urin analysis shows S. G. 1022, negative for albumen, sugar and casts.

The abdomen is distended, and gurgling is palpable and audible; liver and spleen normal in size and position. There is slight tenderness over the epigastrium on deep pressure, and pressure under the ninth rib on the right side causes sharp pain on deep inspiration.

The stools are quite bulky, light grey in color, foamy when first passed, and contain free fat in noticeable quantities.

The diagnosis of chronic pancreatitis was made prior to operation. When the abdomen was opened the gall bladder was found twice its usual size and filled with fetid bile. There were no adhesions present, and no stones in the gall bladder, nor ducts. There was no change in the pancreas, except slight enlargement of the head of the gland. Outside drainage was provided for, as in the other two cases.

The condition of the patient upon leaving the table was not good. The operation, consuming but 35 minutes, was, however, a great tax upon him, and it was some hours before he warmed up and gained a position comfortable to us. In every other way than this, however, his post-operative history was uneventful in every respect. He was out of bed on his tenth day; the wound ceased draining on the 31st day, when he was sent home. He was seen two weeks ago and weighs 118 pounds.

For brevity's sake it would be well to limit this paper to the report of the cases presented here; but, since it is with the prime intention of bringing out clearly the subject to those who may not be familiar with it, it will be necessary to consider *seriatim* the different points of the question, making such consideration, however, as short as is compatible with a lucid presentation.

Anatomy: The one point in the anatomy of the pancreas which

is of the greatest importance in relation to its diseases lies in the association and juxtaposition of the common bile duct and the Duct of Wirsung, the main excretory duct of the pancreas. The common bile duct, in its third or pancreatic portion, lies behind the head of the pancreas; its fourth portion lies within the wall of the duodenum. The pancreatic portion in 62 per cent of all cases is contained, either wholly or in part, within the head of the pancreas, lying in a deep groove behind the head of the gland in the remaining 38 per cent of the cases. The Duct of Wirsung lies below the common bile duct, and joins the latter, in the majority of all instances within the duodenal wall, there being formed just in front of their point of union a small dilatation known as the "Ampulla of Vater." The orifice of this is situated upon a small elevation on the mucosa of the duodenum, called the "caruncula major," or more commonly known as the "bile papilla." The pancreas is also provided with an accessory duct, the Duct of Santorini, which opens into the duodenum at a point slightly above the location of the bile papilla. This duct is always present, but in a considerable number of instances it is either obliterated or its caliber is so reduced in size as to render it a poor substitute for the Duct of Wirsung, should this latter be disturbed in function. This fault is found present, according to Mayo-Robson and Cammidge, in 31 per cent of cases.

As to the *Physiology* of the gland, the pancreatic juice contains four ferments: Amylopsin, converting starches and glycogen into dextrose and maltose; Trypsin, converting proteids into albumoses, peptones and amino-acids; Steapsin, converting neutral fats into fatty acids and glycerin; and a milk-curdling ferment. (Howell, "Text-Book of Physiology.") It will be seen, then, that, collectively, the pancreatic ferments have the power of continuing and bringing to a final issue the processes of digestion commenced by other organs since they are capable of acting upon all food-stuffs. By far the principal action of the juice, however, is that determined by the presence of steapsin in the digestion of fats, for this is the only ferment which has this action, and is supplied only by the pancreas. This action of steapsin is aided very materially by the presence of bile, though the latter has in its composition no steapsin, and alone is incapable of acting upon fats. (Howell, *ibid.*) It will be remembered that anatomically

the bile and pancreatic fluid come together before they are discharged into the duodenum. The necessity for such intimacy between the two structures is thus partly accounted for, physiologically.

Pathologically it may be said that, in so far as concerns us, there are but two forms of chronic pancreatitis—the interlobular and the interacinar. Of the latter, but little is known of its causation, and it is of no interest to us here. It is supposed to have some connection with the production of pancreatic diabetes. It is the interlobular or interstitial form with which we are dealing. In this form there exists a state of proliferation of connective tissue within the gland structure, but without primary invasion of the parenchyma itself, and, with the destruction of the latter as a secondary outcome of this connective tissue overgrowth, very much as occurs in interstitial nephritis or hepatic cirrhosis.

The etiology of the disease is of the greatest importance. Deaver (*Journal, A. M. A.*, Vol. LI, p. 374) states that there is no doubt that the most frequent cause of pancreatitis is interference with the discharge of the gland's secretion, whether associated or unassociated with some ascending infection. The most common cause is the lodgement of a gallstone in the ampulla of Vater, and the frequent relation between gallstones and pancreatitis is thus explained. W. J. Mayo (*Journal, A. M. A.*, Vol. L, p. 638) found in 268 operations on the common and hepatic ducts that the pancreas showed involvement in 18.6 per cent of the cases. In 124 of the cases the head of the organ alone was involved, while in but 17 was the entire organ at fault. He further found that, when the gall bladder alone was involved with stone, the frequency of pancreatic complication was reduced to 4.45 per cent. It is considered that the damming back of its secretion upon the gland is in itself sufficient to cause inflammation, while the ideal combination of causes is found in obstruction plus infection. On the other hand, Deaver (*loc. cit.*) believes that, without obstruction and consequent stasis, an infection alone may nullify the protective influence which free discharge exerts and lead to pancreatitis. This feature of infection alone accounts for those cases in which pancreatitis occurs without gallstones, or with stones in the gall bladder only, and no obstruction to the ducts. Again,

he says it is not even necessary to presuppose the presence of gallstones in cases of the latter sort, as the presence of stones presupposes in itself a preceding infection, which is in itself a sufficient cause. In most of Deaver's cases no gallstones were present, and we believe that the proportion of instances in which gallstones and pancreatitis coexist has been found to be so large that the other possibility, pancreatitis without cholelithiasis, may frequently be overlooked. In none of the cases reported here were stones present, while in each of them there was undoubted evidence of chronic cholecystitis, as evidenced by the presence of adhesions, alteration in the normal character of the tissues and of the bile itself.

In cases of long-standing infection from a duodenal catarrh, pancreatitis frequently results, and Mayo-Robson believes that in many instances of so-called catarrhal jaundice a pancreatitis exists, the jaundice being produced by the constriction of the common bile duct by the enlarged and swollen head of the pancreas, through which the duct so frequently passes.

Causes of pancreatitis other than local infection or stasis have been mentioned, as syphilis, alcoholism, malarial toxemia, mineral poisons, etc.; but these are by far in the minority. The rôle played by the typhoid bacillus is important, however, as leading to subsequent changes, either the formation of stone or the continuance of a chronic infection. The influence of the typhoid organism in the exciting of all inflammatory lesions of the bile channels is now a generally well-accepted one, and many statistical reports bearing upon this matter are easily at hand. In Cases 1 and 3 reported here typhoid fever had been incurred by the patient, in one seven years, in the other seventeen years, prior to their consulting us; and it is not stretching a point to believe that this was, in all probability, at the bottom of the complaint in each case.

Symptoms: For the sake of convenience, the symptoms of the disease are to be divided under three headings—those due to the local lesion, those due to interference with the secretion of the gland, and those due to derangement of its internal secretion. Under the first heading, local lesion, there are to be considered pain, tenderness, tumour and jaundice. All of these are variable symptoms. In most cases there is a certain amount of pain, usually epigastric or on one or both sides of the median line. In our cases, pain was

a prominent symptom in one; less noticeable in the other two. In two of them it was both epigastric and in the right hypochondrium; in the other, when present, only in the epigastrium. Pain in the right shoulder, which occurred in one of our cases, is to be attributed to the lesion of the gall bladder. The pain is not often of any great severity. Patients complain rather of a sensation of epigastric weight and fullness. Tenderness is always present to a certain degree, even if very slight in some cases, and is situated over the region of the pancreas; and over the gall bladder if there is much involvement of the latter. In two of our cases it was a prominent symptom over the gall bladder. The presence of a tumor is rarely elicited, even in very thin individuals, in whom the pancreas may be felt on palpation. It is found only in cases of malignant disease or in pancreatitis accompanied by common duct stones, in which the lesion of the organ is pronounced.

The presence of jaundice has already been spoken of. It exists in about 62 per cent of the cases, the proportion being accounted for by the anatomical peculiarities present, and is a symptom of great importance, and one which may have various causes. In pancreatitis due to prolonged infection from duodenal catarrh it is due to compression or occlusion of the bile duct by the swollen head of the pancreas. The lodgement of a stone in the common bile duct will produce jaundice, as will also the occlusion of the duct by the swelling of the mucous membrane from infective processes. There is said to be a point of difference between the jaundice occurring from blocking of the bile passages alone and that in which the occlusion of the bile passage is accompanied by disease of the pancreas; the color being, in the latter instance, of a darker shade. Damming back of the bile upon the gall bladder will occasionally lead to distention of the latter, and in such cases, with jaundice and gall bladder enlargement, the diagnosis is likely to be confused, the probability of gallstone disease being a likely one; although, in such instances, as Deaver says, this confusion would be of but little moment, surgical interference being indicated in either case. Jaundice was absent in all of our cases.

The symptoms due to disturbance of pancreatic function are of very great importance. Loss of appetite and gaseous distention are always present. The diarrhea present is a peculiar one, and the loss of weight and strength is out of proportion to what could

be expected from mere loss of body fluids and malassimilation. The stools are not, as a rule, very frequent. They are often of enormous size and always contain more or less free fat, which can be seen floating upon the surface of the stool after standing for a while. Their bulk is partly to be attributed to the increased amount of undigested material passing through the tract, particularly fat, and partly to the increased fermentation which goes on in the lower part of the intestine. Their frequency is due both to their increased bulk and to the large quantity of irritating by products which they contain. The color of the stool is usually grey or white; in one of our cases there was a slight tinge of yellow, hardly perceptible.

It would seem difficult to explain this alteration in color when the pancreatitis is unassociated with the presence of stone in the choledochus, but such difficulty is only apparent. Were it due to the absence or diminution in quantity of the bile, this sign would not exist in a number of cases of pancreatitis, for we have seen that in many instances of the disease there is no occlusion of the bile duct; but it is due to the absence of pancreatic juice in normal quantity. It has been shown that bile alone colors the stool but a very light yellow, while the addition of the pancreatic fluid is necessary in bringing about the normal dark brown of the healthy stool. There is, in the character of the stools, nothing of the watery consistency of the passages from diarrhea due to intestinal inflammation. Our three cases were somewhat peculiar in that in each of them the passages occurred only in the early part of the day, the patients being comparatively comfortable after complete emptying of the intestine had taken place.

The one symptom, so far as we are able to determine, of interference with internal secretion, is diabetes, and when this occurs in the interstitial form of the disease there is but little hope of producing a surgical cure. It would here indicate that the progression of the pathology was such as to severely interfere with the islands of Langerhans, an extent of the lesion which may well be seen to be extreme. The diabetes in these cases must not, however, be confused with that which may result purely from absence of pancreatic ferments from the intestinal canal, in which case it becomes a purely alimentary diabetes and is amenable to treatment.

Cambridge, of London, has devised a test for the presence of pan-

creatitis through urinary examination which is giving much satisfaction now, although at first the question of its value was undecided. It is a test extremely complicated in character, and cannot be out to use by any but the trained laboratory man. We heard Dr. Wm. Mayo say that until his pathologist had been sent to London to study the test under Mr. Cammidge himself they were getting poor results from it in their work. We have not used it in our work. We may say here also that the microscopical examination of the stools was not done by us, nor have we used the ocular test recently brought forth by Lowy with some success. The diagnoses in our cases were all made prior to operation, and the operation undertaken deliberately and for the relief of that condition alone, clinical, bedside methods being used. We personally believe that the diagnosis of the disease is relatively easy, if a pure chronic pancreatitis alone exists, uncomplicated by gallstones, tumors or cysts or other lesion of the gland. In these complications, however, the same treatment is indicated in so far as exploration is concerned—all these diseases being of a surgical nature. There will be many, of course, to combat this statement regarding the ease of diagnosis, but it is our belief withal.

Treatment: At the very outset this may be said to be wholly surgical. Attempts have been made to treat chronic pancreatitis medically by the use of different extracts and other preparations of pancreas, but they have, without exception, been futile, except in the occasional temporary relief of symptoms. In our own cases these preparations had been used from time to time, though without knowledge of the condition at hand, and merely as digestive ferments are usually used, none of the cases being benefited thereby.

From the review given here of the etiology and pathology of the disease, the line of treatment suggests itself. Granted, as must be, that a subacute or chronic infection of the biliary tract is the lesion primarily behind the change in the pancreas itself, it follows that any effort to cure the latter must, of necessity, be directed at the former. When gallstones are found, either in the gall bladder or ducts, or both, the removal of the stones is to be effected and drainage established. When there are no stones the treatment is the same, for it will be remembered here again that it is the infection that is responsible for the stones, if any, and, therefore, *ipso*

facto, for the pancreatic inflammation. Concerning the best methods of drainage, some difference of opinion exists as to the relative preference of cholecystostomy and cholecystenterostomy. In this connection we believe that where extensive changes have not taken place in the pancreas, and in which there is no permanent obstruction of the duct nor great diminution in its caliber, drainage to the surface, with suture of the gall bladder to the aponeurosis of the rectus or the external oblique, for the purpose of maintaining drainage for a longer time, is all that is necessary. In the cases in which obstruction to the common bile duct exists from engorgement or swelling of the head of the pancreas, it would seem to be better surgery to drain into the intestinal tract. This would also hold in cases of impaction of a stone in the common duct which could not be removed, though instances of this sort will be but rarely met with. In none of our cases was there indication of obstruction to the bile duct, and all did well with surface drainage. It was our intention in Case 3 to anastomose the gall bladder with the duodenum, more to try the method than from any absolute indication; but the condition of the patient was such as to prohibit any technique other than that consuming the least of time. In anastomosing with the bowel, either the Murphy button or simple suture may be used. We have had no experience with this operation, but, judging from what we have learned of the use of the suture in stomach work, would prefer suture in this instance as being the surest, and as simple a method. The gall bladder may be connected either with the stomach, duodenum, a portion of bowel lower down, or with the hepatic flexure of the colon. The duodenum is the preferable site, but it is not always possible to put it to use, either from adhesions, or, more likely, from anatomical peculiarities in the duodenum itself, rendering it immobile. In cases in which biliary fistula has been pathologically established between the stomach and the gall bladder, or between the latter and the colon, no deleterious effect has been observed upon the individual, although in using the colon the deprivation to the economy of the action of bile on the digestive process is to be considered. Theoretically, at least, union with the colon would seem to be unfavorable, but it has been done by Mayo (*Surgery, Gynecology and Obstetrics*, December, 1908) in several instances without ill effect.

Cholecystectomy is not to be considered. We must remember that in these cases the gall bladder serves merely as a point for the institution of drainage, and its removal would defeat the object of treatment. Even if removed and drainage of the cystic duct be established, the results could hardly be as satisfactory, and the opportunity for re-operation, should this become necessary, would be practically destroyed.

In conclusion we submit that:

(1) Chronic pancreatitis, as a definite disease entity, exists oftener than is supposed.

(2) Cases of "chronic diarrhea" should be examined most thoroughly and the possibility of a chronic pancreatitis taken note of in the elimination of their causes. The inspection of the stools by the practitioner in cases of diarrhea is too seldom practiced.

(3) The established fact of the correlation of gallstones and pancreatitis should not blind us to the probable frequency of the disease without cholelithiasis.

(4) The diagnosis of the disease should not be of great difficulty, and practitioners must not consider it beyond their abilities because deprived of laboratory knowledge or facilities.

(5) The treatment is wholly surgical, and, if instituted at the proper time and with good judgment and technique, should give a large percentage of cures.

(6) The "proper time" for treatment cannot be judged from the condition of the patient alone; the greater the severity of his symptoms and the more extreme the results upon his metabolism from the influences of the disease, the greater is the necessity for prompt interference.

The Diagnosis and Treatment of Adult Pott's Disease.

By EDWARD S. HATCH, M. D., New Orleans, La.

This paper is not an attempt to offer anything new in the treatment of adult spinal tuberculosis, but rather to call your attention to the fact that this disease is not such a rarity as is generally supposed, and that, if we remember it in our differential diagnosis of spinal conditions, it will save many patients from great suffering and deformity.

The following cases are all under treatment at the present time,

some having been treated for three years, others for only a few months; but they all show marked improvement and some of them who, before treatment were bed-ridden invalids, are now able to work and enjoy life without pain or discomfort. I do not know of any condition in which the results of treatment are so gratifying as in adult Pott's disease. The suffering of these patients is very severe and, until a diagnosis is made, their only relief is opiates.

Mr. W. L., *ate* 38. Referred by Dr. R. Matas.

Family History: Both father and mother died of consumption; also one brother and one sister.

Past History: Negative, except for bladder trouble.

Present Illness: For about a year patient has complained of pain in lower part of back and around the right hip. This has steadily grown worse.

Examination: Shows the patient to be very weak and to have all the spinal motions limited; no kyphos; the normal lumbar curve was entirely lost. A large abscess was seen extending down from the right scapular region for about 8 inches. This had been opened and was discharging. A jacket was applied on the frame with correction and a window was cut so that the abscess could be dressed. The patient began to be more comfortable in a few days. He dressed the abscess daily and in August, 1907, a second jacket was applied. Patient has gained in weight and was much stronger. The abscess was discharging very slightly.

In November, 1907, a third jacket was applied.

In May, 1908, a fourth jacket was applied. The abscess had not been discharging for several weeks; so no opening was made in the jacket over the site of the old sinus. This made it possible to make a stronger jacket; the patient had gained during the 10 months 40 pounds in weight and was very comfortable. In the Fall of 1908, the patient was feeling so well that he wanted a removable support made. I made a model for a leather jacket, and the leather jacket was fitted. He was comfortable for about one week, when the old pains returned, and he put on the fourth plaster jacket, which was still good and which he is wearing to-day. The pains immediately disappeared with this treatment.

Mrs. R. B.: Seen in consultation with Dr. Kohlmann in December, 1908. Age, 47. Married. Mother of 8 children.

Past History: Is negative.

Present Illness: About 7 months ago she noticed that she had difficulty in moving her legs. She was unable to get out of her bed without moving her legs with her hands. At the same time she had pain in her right side, and on standing the pain extended to her back. The pains and difficulty in locomotion became worse until she did not try to stand up. Patient had been wearing for a few weeks a plaster cast put on without attempt at correction. She had not improved.

Examination: Shows the patella reflexes to be exaggerated, the left more so than the right; ankle clonus on the left side; patient was able to move her legs slightly in bed, but could not walk without support and then hardly at all; sensation in the legs was normal. Patient presented a kyphos involving the 7th, 8th and 9th dorsal vertebrae.

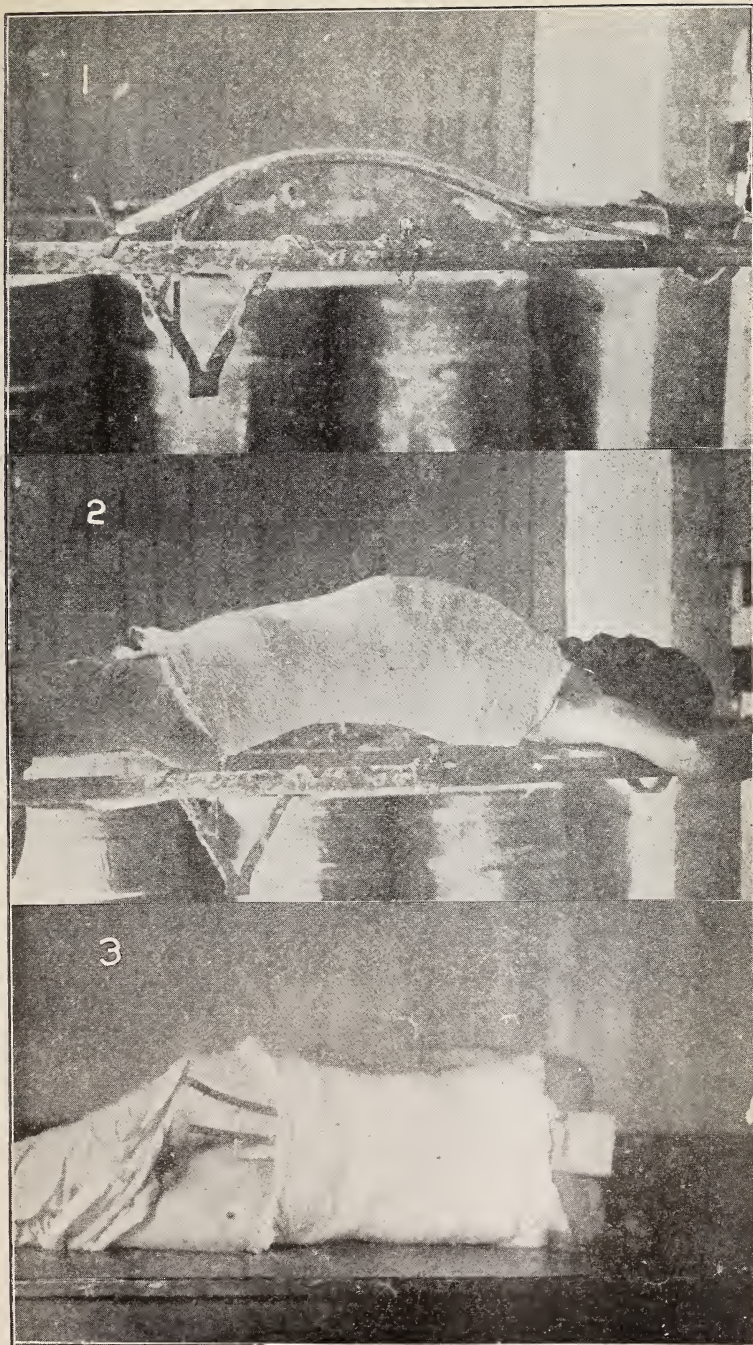
December 30 a jacket was applied on the frame with correction going as high as the axilla. This did not relieve her pain very much and on January 7 another cast was applied in the upright position, including the shoulders, with more correction. The pains were much relieved and the patient had better motor control. She complained of the plaster shoulder straps hurting; so, on February 10, I cut them off and immediately she had a return of her old pain. This jacket was removed and another one applied with correction, including the shoulders. This the patient is wearing at the present time. The ankle clonus has disappeared and the knee jerks are only very slightly increased. She can walk a few steps alone and very easily with slight assistance. No pain now.

Mrs. I. B.: Age 41. Referred by Dr. Hale, of Mobile, December 8, 1908.

Family and Past History: Negative.

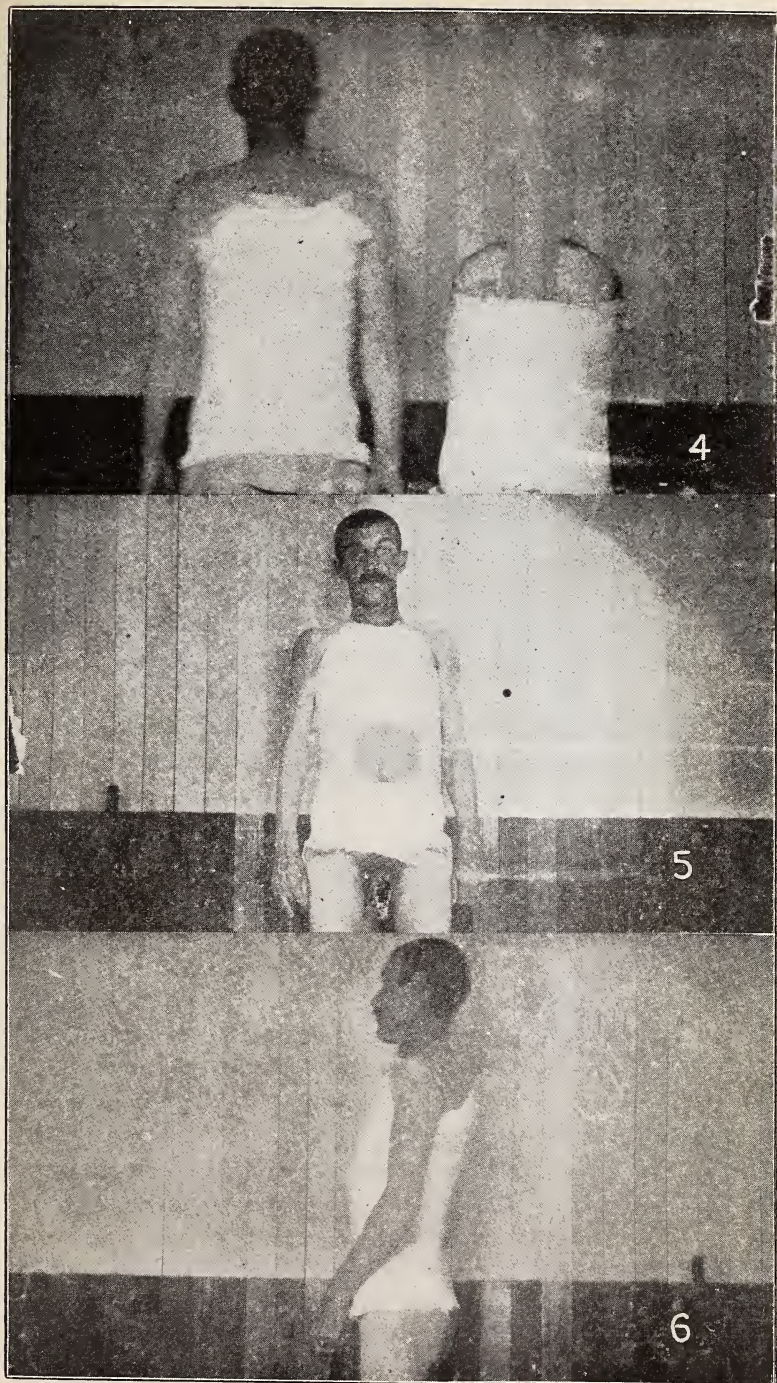
Present Illness: For the last three years patient has had pain in upper part of back. Has been in bed for last 5 months on account of pain. Has lost 20 pounds in weight. Has been kept constantly under the influence of opiates. Jacket applied December 9 in upright position with correction, including the shoulders. Patient began to feel better at once.

April 7, 1909, patient seen. She has been gaining in strength steadily. Has not taken any opiates for the pain since the jacket was applied. Gained 10 pounds in weight. Jacket is getting soft and a new one advised.



1. Goldthwaite frame with the steel bars in position for application of jacket, with correction at 11th and 12th dorsal vertebra.
2. Plaster applied, and patient ready to be removed from frame.
3. Steel bars partly removed, to show method of removing them after the jacket has set.

ILLUSTRATING DR. HATCH'S ARTICLE.



4. Patient after bars have been removed, and on his right the old jacket that had just been removed, which he wore for five months and seventeen days.

5. Showing front view of jacket, with window cut over abdomen and jacket trimmed so it was comfortable.

6. Side view, showing amount of correction obtained by the jacket.

ILLUSTRATING DR. HATCH'S ARTICLE.

Mr. J. H.: From the Touro Infirmary. Orthopedic Department. January 10, 1908; 48 years old, and a laborer.

Family and Past History: Negative, except for chancre in 1891. Has used alcohol to excess. For the last three years he has noticed that his back was not "as strong as it used to be," but he was able to work. About six months ago patient struck his back against the edge of a table; since that time he has had constant pain and could not bend easily; could not lie flat on his back. For the last four weeks he has had weakness and numbness and tingling in his legs. For the last 10 days his legs have given way and he has fallen many times.

Examination: Shows the patient to have a small kyphos involving the 11th and 12th dorsal vertebræ; loss of knee jerks; no ankle clonus. Patient has slight loss of sensation in both legs. Could move the legs very slightly when in bed. The legs are cold. Could not stand at all.

Plaster jacket applied on frame in July, 1908, with correction.

Pains were relieved and the motor control was somewhat improved.

November 10, 1908, a second jacket was applied on the frame, with more correction, and since then the improvement has been steady.

April 18, 1909, patient reported; walked in with only a small stick for support. Said that he has had no pain and was feeling stronger daily.

April 27, 1909, jacket was removed in order that one might be put on giving more correction.

Plaster jacket applied with maximum correction over the 11th and 12th dorsal vertebræ. Patient very comfortable.

Mrs. M.: Age 31. Referred by Dr. Shlenker April 30, 1907.

Family and Past History: Negative.

Present Illness: For past three years patient has had pain in her right side and later in the back. No pain in her legs. Patient groans and cries in her sleep. She suffers somewhat from incontinence.

On examination the patient presented a kyphos involving the 7th, 8th and 9th dorsal vertebræ; increased knee jerks; sensation and motion normal.

May 2, 1907, plaster cast applied on frame with correction.

August 8, 1907, a second jacket was applied to-day.

December 8, 1907, a third jacket applied on this date. The patient has improved steadily and now has no incontinence and no pain. She is doing all her own housework, and sleeps and eats well. Has gained several pounds in weight.

August 18, 1908, a fourth jacket applied. Kyphos not as prominent as on first examination.

January 2, 1909, a fifth jacket was applied to-day.

April 20, 1909, patient reports, still wearing jacket. She has been perfectly comfortable and is feeling so well that she wants to discard all apparatus. Told to return in three weeks to have a model made for a leather jacket.

Mrs. L. T.: Age 52. Referred by Dr. R. Matas, August 18, 1906.

Present Illness: For 5 years has had pain in small of back and left side. During this time has had electrical treatment, osteopathy and a brace which she wore only in the day time. Now complains of great weakness and pain in the legs.

Examination: Shows the patient to have a kyphos involving the last dorsal and the first lumbar vertebræ; knee jerks diminished; no ankle clonus; motion and sensation normal, but great weakness in the legs. Patient did not want to wear a plaster jacket, so a brace was applied; this gave some slight relief, but was not satisfactory. At this time she was not able to sit up more than an hour at a time and could not walk without assistance. After one month the patient consented to have a plaster jacket, and this was put on in the frame, with correction. Four jackets were applied between this time and January, 1908. During this time the patient had gained slowly but steadily, and had been working in the United States Mint for several months. In January, 1908, another plaster jacket was applied, and still another in May, 1908, and the one which she is now wearing was applied in October, 1908. I will quote the patient's own words as to the present condition: "From January, 1908, to January, 1909, I have missed only three days from work on account of sickness; I sleep and eat well; I never have to resort to medicine for the relief of the pain, as I had been forced to do formerly. I can not only go to my work, but can sit through a long play at the theatre without pain or discomfort."

Dr. C. J. D.: Referred by Dr. Hummel, November 30, 1907.

Family and Past History: Negative.

Present Illness: Dates from October, 1906, when he had a slight stiffness in his back. He continued to work until March, 1907, the pains meantime gradually getting worse, but he found that when he was lying down the pains always disappeared.

His condition was diagnosed as lumbago, arthritis deformans, and tumor of the spinal cord at various times. He spent some time at Hot Springs in the early summer of 1907 and was some better when he returned home, but gradually grew worse and went to bed in August, 1907. When I saw the patient he was brought to my office on a stretcher; he could not turn over on the stretcher and could not cough or make the slightest motion without severe pain.

Examination: Showed a wasting and flabbiness of the muscles of the thighs and legs. Sensation was normal; the knee jerks were diminished; no incontinence. The spine was held perfectly rigid and the normal lumbar curve was lost; there was no kyphos. An X-Ray picture was made at this time and showed the focus of the disease to be in the third lumbar vertebra.

December 1, 1907, I put on a plaster cast on the frame, with as much correction as was possible at the time, making the cast as long as he could stand it. Three days after the patient stood on his feet for the first time in many weeks. He improved rapidly while wearing this jacket. The pains were relieved and the strength returned in his legs. The lower part of this jacket softened rather quickly and a second one was applied on January 23, 1908.

August 4, 1908, a third jacket was applied, and the fourth on December 16, 1908, which he is wearing now. During this time the patient has improved rapidly, resuming his practice in the summer of 1908, and he has been able to get about better and with more comfort with each successive jacket. He has gained about thirty-eight pounds in weight, that he had lost during his sickness.

Diagnosis: The above cases, I think it is fair to say, are all typical of adult spinal tuberculosis, and the diagnosis of each one is simple if we remember that such a condition in adults is not rare. There is very little in the literature relating to the

diagnosis of tuberculosis of the spine in adults; but, in a general way, the points to be considered are the same as in children. The history is of very little importance without a careful physical examination. On examination, we see two conditions which are due to the disease, namely, bone destruction and muscle spasm. The destruction of bone which is in the bodies of the vertebræ causes a kyphos or anterior posterior prominence in the spine at the affected point. This does not occur as early in the course of the disease as in children, because the bones are harder in adults, and, therefore, we cannot place quite as much importance in this sign.

Other diseases which may cause a prominence of the vertebræ are malignant disease and aneurism. When the kyphos is found, the diagnosis in the average case is plain, but we must bear this disease in mind so as to diagnose these cases when there is no deformity.

The muscle spasm causes the spine to be held rigid, and the gait to be a very careful and guarded one. On requesting these patients to bend in different positions, we find that the normal mobility of the spine is lost and that the motions cause pain. When the disease is in the lumbar region, the kyphos is seen much later on account of the normal anterior curve to the lumbar spine; and often, when the disease is well advanced, the lumbar spine simply loses its normal curve. The disease that we have to eliminate in making a diagnosis of tubercular spine in the adult are, in the order of their frequency, as follows:

Hypertrophic Arthritis of the Spine: In this condition there is no kyphos, but there may be a rounded prominence, including many vertebræ. The pain is usually in one leg only, instead of in both. The stiffness of the spine may be very marked in this condition. If in doubt, an X-ray, or either the ocular or skin reaction for tuberculosis, will help to clear up the diagnosis.

Sprain of the spine is sometimes seen in adults, and it may be difficult to differentiate at once, but the rapidity of relief from symptoms will clear up the diagnosis.

Hysterical spine is not as rare in adults, as is genehally supposed. This condition may simulate Pott's disease very closely.

There is no kyphos, nor is there any marked rigidity, except in the patients who have remained in bed for some length of time. The patient complains of pain out of proportion to the physical signs. If the patient's attention can be diverted from the condition, the diagnosis is usually easy; the stigmata of hysteria may be present also.

Malignant disease shows a more rounded kyphos when one is present, and is nearly always secondary. This condition may cause great pain—even more than is usual in Pott's disease and paralysis. The pains are not relieved by support. I have seen one case in which the diagnosis was only made at autopsy, it being impossible before death to differentiate between carcinoma of the spine and tuberculosis.

Spondylolisthesis, which is a dislocation of one of the lumbar vertebrae, will cause pain, a queer waddling gait, and lordosis. This condition is not easily confounded with Pott's disease.

In aneurism, the diagnosis is almost always made by the other symptoms of this condition before any change in the spine would be noticed.

Tuberculosis of the retroperitoneal glands may simulate Pott's disease, but here the spine is not held as rigid as in tubercular spine, and there is no deformity. An X-ray will help to clear up the diagnosis.

Treatment: In the treatment of this disease we must recognize two main points: First, the care of the general health of the patient; and, secondly, the control of the local trouble. The same general directions that are applicable to all wasting diseases should be given the patient, namely: to live in the open air as much as possible and in a dry atmosphere. The food should be of the best quality that the patient can afford, and the diet should be a forced one if the digestion will permit. It is best to have these patients sleep in the open air if they can possibly arrange it. It is sometimes advisable to use simple tonics, and also tissue builders, such as cod-liver oil or the emulsions of mixed fats but the dependence is to be placed on plenty of good food and fresh air and sunlight.

Coming now to the local condition, we have to deal with practically a broken back, and the problem in each case is how best to hold the spine rigid with the most comfort to the

patient. It will depend, to some extent, on the location of the spinal disease as to which method of splinting it is best to use. In the cervical and low lumbar disease it is often necessary to use a bed frame in the former, or the plaster jacket plus the double plaster spica in the latter, in order to fix these positions. But, as a rule, the adult patients become very restless when they are treated with horizontal fixation; therefore, I do not use this position if I can help it. When the patient is in a stooping position the intervertebral discs are pressed together and the diseased vertebral bodies are brought into closer contact. Therefore, in correcting these cases we put the maximum pressure directly over the deformity and hold the whole spine in a hyperextended position.

In adults the choice of apparatus for this disease, except in the cases mentioned above, is the plaster jacket, and later the leather or celluloid jacket, or the steel spinal brace.

In my opinion, the plaster jacket is very much superior to the brace, and it is nearly always possible to apply a plaster jacket that will keep up the correction and still be fairly comfortable.

When our patients are in well-fitting plaster jackets we know that the diseased vertebræ are properly supported and that they cannot change their position. In this climate the jackets are harder to wear than in a cold climate. I usually apply these jackets on the Goldthwaith frame. This consists of a support for each end of the narrow cast steel bars that the patient lies on. These steel bars are then shaped to fit the individual case, with the maximum forward pressure over the diseased portion of the spine. These bars put the pressure over the transverse processes and the kyphos, if one is present, is between them. They are then padded with heavy felt in order that the pressure will be somewhat elastic, and a window is cut in the felt so that the plaster, when it is applied, will not put pressure on the kyphos itself. These bars are made 22 inches long and one-half inch wide. The hardest part of the application is the placing of the patient on the steel bars. He must be lifted carefully and placed on them evenly, and must have his muscles relaxed so that the correction can take place. The best test as to whether the patient has been placed in the proper position on the frame is whether he is comfort-

able or not. If the position is proper, the patient should be resting comfortably. He may feel a slight discomfort from the hyperextension of the spine, but the pains due to nerve root pressure will be less. Then, after putting felt padding over the anterior superior spines, the plaster jacket is applied. When the plaster has set, the patient is removed from the frame, the steels are drawn out of the jacket. By this means we place the patient in a corrected position, and then fix him in that position. A large window is cut out over the abdomen and the plaster is cut away under the arms and over the lower part of the abdomen so that the patient can sit in a chair with comfort. If the position is a satisfactory one, the jacket is allowed to remain on until it begins to soften, three to four months being the average time. It is then removed and another one put on.

If the disease is in the middle or upper dorsal region, it is best to put on a jacket including the shoulders; otherwise, there is not sufficient leverage above the disease to get a proper fixation. In these positions I use a seat for the patient, the position of which seat can be easily changed. He has a strap over the thighs, fixing him to the seat. Then extension is brought about with the regular Sayre extension apparatus, and, if necessary, more correction can be applied with a bandage, making a pull over the well-padded diseased portion. Then the jacket is applied, including the shoulders, and, after it sets, cut away as was described for the former jacket.

Some patients cannot seem to wear a plaster jacket with comfort, and still others will not. In these cases we have to use a steel back brace after the "Taylor" pattern. This brace is in no sense a correction apparatus, but serves to keep the spine rigid. If there is paralysis from cord pressure, or great pain due to nerve root pressure, the brace for adults has been of little use in my hands. I will not go into the making or fitting of a spinal brace here, as that matter is taken up at length in all text-books on orthopedic surgery.

To summarize on the treatment:

First. The spine is to be held rigid, with as much correction over the deformity as the patient can stand.

Secondly. By far the best method to use is the plaster jacket.

Thirdly. A brace may be used if the patient will not tolerate a jacket.

Fourthly. As much attention should be paid to the general health of the patient as in tuberculosis elsewhere in the body.

Miscellany.

MORPHINISMUS. (Franz H. Mueller, *Berl. klin. Wochenschr.*)
Notwithstanding the great practical importance of the subject, there is but little accurate knowledge regarding it diffused among the community.

In treating cases of morphinism one must, in the first place, avoid such methods as the attempt to substitute, say, plain water, for the supposed injection of morphia without the patient's knowledge. When the patient consults the doctor, he must be given to understand that he is suffering from a disease and has to be treated by medical means. An absolute essential in treatment is to persuade him to enter an institution; his case must not be undertaken at his own house. In the "home" forcible methods ("Zwangskur") are to be avoided as dangerous. The dose of morphia must be reduced gradually, the determining factor in the rate of diminution being the physical state of the patient. Every means must be used to improve his general strength, and so to balance the effect caused by the withdrawal of the drug.

It is very important to gain the intelligent co-operation of the patient's friends. They also must realize that for the time the patient is rather a sick man than a subject for moral lectures. It may be a mistake for the doctor on all occasions to refuse to prescribe morphia for the patient, who if he does not get it by a regular prescription is pretty sure to do so by stealth.

As regards prophylaxis, physicians should avoid the use of morphia except where this is imperative. If it has to be given there is less risk of inducing a habit if it be prescribed by the mouth, the patient not knowing the name of the drug, than if given hypodermically. If, however, the latter method has to be resorted to, one dose sufficiently large to produce at once the desired effect is safer than a series of small repeated doses. Above all, the syringe must never be entrusted to the patient.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Open Meetings of Local Medical Societies.

The medical profession stands committed to the proper education of the general public as to the nature, and especially the prevention of disease.

The individual physician can do much to teach those with whom he comes in contact, and oftentimes will accomplish immense good because of the confidence his own people have in him. Yet, as with all propaganda, it is organized effort that tells the most. We all know, here, how much the trend of public opinion was guided into the proper channels by the public conferences given under various auspices at the time of the last outbreak of yellow fever in 1905. Such educational movements should not be reserved for emergencies and catastrophes, but should be kept up as long as the people need education, and that means always.

The American Medical Association, through a resolution passed by its House of Delegates last June, has requested all local medical societies to hold one or more open meetings annually, to be devoted to the discussion of the prevention of disease and the hygienic welfare of the people.

We suggest to the Orleans Parish Medical Society, and to other local societies throughout the State, the advisability of carrying out the suggestion of the A. M. A.

Needless to say that the meetings should be arranged intelligently and at an opportune time—not for the sake of notoriety on the part of the organizers, but unselfishly for the general good.

The State Society has one open session at its annual meeting, and has thus wrought in the right direction. Should the local societies take up the idea in the proper spirit, much more could be accomplished.

The Charity Hospital Visiting Staff.

The members of the Visiting Staff of the Charity Hospital were moulded into an organization at the instigation of the Board of Administrators of that institution about a year and a half ago, through the Board's request that the staff elect a conference committee which would be called upon at the pleasure of the Board.

It had long been desirable and desired that the visiting surgeons and physicians of the hospital be accorded better recognition by the management. After their selection the committee patiently awaited some summons from the Board. Although many important matters had transpired in the meantime, no sign had come from the Board up to the annual meeting of the staff in November, hence they decided the mountain had better go to Mahomet, and, appearing before the Board, requested that in the future their chairman be received at the meetings of the Medical Committee of the Board and allowed to take part in all its deliberations, without the privilege of a vote, of course.

The Board has granted the request most graciously, and it may be expected that, now the ice is broken, the Board will have the advice and coöperation of the staff, whenever consistent, to their mutual satisfaction and to the greater advantage of the hospital.

The staff is to be congratulated in having taken the initiative, after having remained in a receptive state sufficiently long, while the Board is to be commended for acceding to the desire of the Visiting Staff to have a word in the decision of purely medical matters at the hospital.

Happy New Year.

While 1909 was not brilliant financially for the majority of us, we have the consolation that it might have been worse, and, especially, that substantial progress was made in matters medical and hygienic the world over.

Let us hope that 1910 will be better and brighter all along the line. We wish to all our subscribers, readers and advertisers a most happy New Year!

Medical News Items.

EXAMINATION OF CANDIDATES FOR ASSISTANT SURGEON IN THE U. S. P. H. AND M. H. S.—A board of commissioned medical officers will be convened to meet at the Bureau of Public Health and Marine Hospital Service, No. 3 B Street, S. E., Washington, D. C., Monday, January 24, 1910, at 10 o'clock A. M., for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the Public Health and Marine Hospital Service. Candidates must be between 22 and 30 years of age, graduates of a reputable medical college, and must furnish testimonials from responsible persons as to their professional and moral character. The following is the usual order of the examination: 1, Physical; 2, oral; 3, written; 4, clinical.

Upon appointment the young officers are, as a rule, first assigned to duty at one of the large hospitals, as at Boston, New York, New Orleans, Chicago, or San Francisco. After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon.

For further information, or for invitation to appear before the Board of Examiners, address "Surgeon-General, Public Health and Marine Hospital Service, Washington, D. C."

CONGRESS OF THE ASSOCIATION OF FRENCH-SPEAKING PHYSICIANS.—A circular recently issued by the President and Secretary-General of the *Association des Médecins de Langue Française de l'Amerique du Nord* announces that the Fifth Congress of this Association will take place at Sherbrooke in the second week of the month of August, 1910. This date has been chosen in order to give an opportunity to the members of the Association to take part also in the reunion of the Canadian Medical Association, which is fixed for the last days of August. A cordial invitation is given to the medical men of the United States to attend this Congress.

MEETING OF THE CLAIBORNE PARISH MEDICAL SOCIETY.—A special session of the Claiborne Parish Medical Society was held in Castle Hall, Thursday, November 18, being in open session, followed by a banquet for the doctors, their wives and other guests. The first number on the program was an address in behalf of the

laffy by Hon. C. W. Seals, editor of the *Guardian-Journal* who spoke of the great progress in medicine and surgery and the good work accomplished by the medical profession for the benefit of mankind. Dr. Sidney Porter, of the State Board of Health, followed with a paper on Pellagra, which was fully discussed by a number of the physicians present. Dr. A. R. Bush then read a paper on Malarial Hematuria. The banquet followed and was highly enjoyed by all present. The next regular meeting of the Society will be in Homer, Tuesday, January 11.

AT A MEETING of the Board of Administrators of Touro Infirmary recently held, the medical staff for 1909 was re-elected for the year 1910. Dr. E. D. Fenner and Dr. G. K. Logan, in the Department of Pediatrics, having resigned, Dr. W. W. Butterworth and Dr. L. R. DeBuys were appointed senior and junior, respectively, in that department. Dr. Pothier, senior in the Department of Pathology, having resigned, Dr. C. W. Duval was appointed senior and Dr. F. B. Gurd junior in this department. Dr. J. T. O'Ferrall was appointed junior of the Department of Neurology.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.—On December 14-16, 1909, at Hot Springs, Va., the Southern Surgical and Gynecological Association held its twenty-second annual session, Dr. Stuart McGuire presiding. Very interesting papers were read by some of the most prominent professional men in the country, and a pleasant time was enjoyed by those attending.

THE DE SOTO PARISH MEDICAL SOCIETY.—On December 10, 1909, the De Soto Parish Medical Society held an interesting meeting. Dr. J. R. Rushing, the President, read a paper on Pellagra. He was elected President; Dr. E. I. Persinger, Vice-President, and Dr. E. Davies, re-elected Secretary and Treasurer.

THE CHATTAHOOCHEE VALLEY MEDICAL AND SURGICAL ASSOCIATION.—The next meeting of this Association will occur in January at West Point, Ga.

TRI-COUNTY MEDICAL SOCIETY OF MISSISSIPPI.—The Tri-County Medical Society, composed of the physicians of the counties of Copiah, Lincoln and Pike, held its annual meeting December 14.

Excellent resolutions were adopted by the Society, among them a resolution pledging the support of the Society to the State Board of Health in securing whatever legislation may be asked for.

CONFERENCE ON PELLAGRA.—More than 150 physicians from Alabama, Mississippi and Louisiana assembled at Gulfport, Miss., on December 14 and began the study of pellagra. A program on the different phases of pellagra was carried out by representative physicians from these three States.

ELECTION OF OFFICERS AT THE O. P. M. S.—The Orleans Parish Medical Society held its election of officers in December, and the following were elected: Dr. B. A. Ledbetter, President; Dr. Eugene H. Walet, First Vice-President; Dr. P. L. Thibaut, Second Vice-President; Dr. Chas. N. Chavigny, Third Vice-President; Dr. Chas. P. Holderith, Secretary; Dr. H. D. King, Treasurer; Dr. Homer J. Dupuy, Librarian. Additional members of the Board of Directors: Dr. Jos. T. DeGrange, Dr. Arthur Nolte and Dr. W. H. Seeman.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.—The New York Post-Graduate Medical School is establishing in its new building a full equipment of wards and laboratories for the teaching of tropical medicine. The department is being conducted under the coöperation of the United States Army, Navy and Public Health services, who detail officers from their respective medical corps to assist in the conduct of the laboratory and clinical courses.

THE MATERNITY HOSPITAL OF MINNEAPOLIS.—The Maternity Hospital of Minneapolis, of which Dr. Martha G. Ripley is in charge, is said to have the lowest death rate in the world. The hospital has been conducted for the past sixty years.

POST-GRADUATE SCHOOL FOR TEACHERS' COLLEGE.—An endowment fund has been presented by Mrs. Helen Hartley Jenkins to Teachers' College, Columbia University, for the support of a post-graduate school for teacher nurses, who will carry the theory and practice of hygienic living into schools, homes, factories, stores and communities.

DIPLOMAS FOR NURSES OF THE NEW ORLEANS CHARITY HOSPITAL.—Diplomas were awarded to 39 nurses of the Training School of the Charity Hospital. The annual oration was delivered

by Rev. Dr. W. A. Barr, and addresses were made by Dr. E. S. Lewis, Vice-President of the Board of Administrators, and Dr. Danna, House Surgeon.

IN THE RECENT FIRE AT RUSTON, Dr. W. S. Kenall lost his entire office, with small amount of insurance. Dr. W. S. Rutledge lost \$1,000, with some insurance. Drs. Ragan and White suffered a severe loss in their library, which was a very fine one, and not covered by insurance.

BAKERY REPORTS.—Of the 125 reports made by the inspectors of bakery establishments, Dr. O'Reilley, of the City Board of Health, found only 21 in such condition as to allow the Board to issue permits to them to continue business. The owners of the establishments have, however, until February 3, 1910, to conform to the law, and, failing to do this, will be prosecuted.

CLIPPINGS.—The death rate for whites in New Orleans for November was only 13.54.

The present City Board of Health has been re-elected for the next four years.

New York made an appropriation of \$2,237,000 for the city hospitals for 1910.

The American Hospital in Paris was opened last month.

There are 148 medical colleges in the United States.

PERSONALS.—Dr. Felix R. Hill received a commission from President Taft as First Lieutenant in the Medical Reserve Corps of the United States Army.

Dr. Augustus McShane was appointed Dean of the Louisiana State College of Dental Surgery.

Dr. D. D. Mims, of Crowley, was re-elected President of the Board of Health.

Dr. S. Lewin, of Chicago, will spend the winter in New Orleans.

Among the visiting doctors in New Orleans last month were Dr. Hugo Roberts, Chief Quarantine Officer of Cuba; Dr. Eduardo Liceaga, President of the National Board of Health of Mexico; Dr. Allan Eustis, of Abbeville; Dr. Feltus Barrow, of St. Francisville.

Dr. Wm. E. Brickell, who has been physician in charge of the St. Joseph Maternity Hospital for the past thirty years, has resigned and Dr. J. J. Ryan has taken his place.

At the request of the State Board of Health of Georgia, Gov. Noel, of Mississippi, has appointed thirty doctors to attend the Conference on the Eradication of the Hook-Worm Disease at Atlanta in January.

The King's Daughters' Hospital at Gulfport, Miss., was opened December 18, and will have five pay wards and two charity ones.

REMOVALS.—Dr. F. R. Singleton, from Arcadia, La., to Woodworth.

Dr. W. W. Pugh, from Pineville, La., to Napoleonville.

Dr. T. L. Mills, from Lindsay, La., to Zachary.

Dr. H. S. Long, from Mt. Enterprise, Texas, to Jacksonville.

MARRIED.—On December 11, 1909, Dr. Geo. A. MacDiarmid to Miss Ada S. Martin, both of this city.

On November 30, 1909, at Shreveport, La., Dr. James Moore Adams and Miss Ella Mary Burns.

At Jena, La., December 4, 1909, Dr. Roy Hamilton, of Pollox, La., to Miss Lillie Ezell, of Trout, La.

DIED.—On December 6, 1909, Dr. E. F. Painchaud, of Napoleonville, La., at the age of 86.

On December 1, 1909, Dr. Jos. Albert Pujos, of Thibodaux, La., aged 47 years.

On December 7, 1909, Dr. C. Z. Williams, of Covington, La., aged 45 years.

Dr. G. A. Colomb, of this city, a well-known dentist and at one time President of the Louisiana State Dental Society.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Parenthood and Race Culture—An Outline of Eugenics. By CALEB WILLIAMS SALEEBY, M. D., Ch. B., F G. R. (Edin.). Moffat, Yard & Co., New York.

Since Oliver Wendell Holmes' dictum that the improvement in a man's heredity should begin with his great-grandfather, we have all more or less appreciated the fact that race improvement must depend very largely upon the environment and morality of those who are the creators. Dr. Saleeby

has ably expanded this idea into a book of nearly four hundred pages, in which the child is studied before and after birth in its relation to population, race and customs, including marriage and hygiene generally. The economic side of race culture finds a considerable space and frequent reference is made to the naturalist students of the past 100 years. The whole burden of the text aims at a wide apprehension of the subject of Eugenics, defined as the "Study of agencies under social control that may improve or impair the racial qualities of future generations, either physically or morally."

No argument is made for a more numerous population of the earth, but rather for a more improved population—eliminating from the possibility of race production those who are unfit by way of mental or physical deficiencies, due either to disease or condition.

Anyone may read this book with profit.

DYER.

The Causation of Sex. By E. RUMLEY DAWSON, L. R. C. P., London; M. R. C. S., England. H. K. Lewis, London, 1909

It is refreshing to get hold of a book out of the ordinary, which this assuredly is. An index of the character of the writer may be gleaned from the dedication to Ignatius P. Gemmelweiss, a medical martyr who died a victim to persecution and contempt for advocating a theory of the causation of blood poisoning in obstetrics now universally accepted.

This work is the result of prolonged and careful study and the collection of facts. Dr. Lewis claims to have discovered nature's secret of sex causation and explains how sex can be controlled or predicted in all instances after the first birth. He explains apparently satisfactorily how the present Empress of Russia had four girls, then a boy, and states he predicted the sex of the last three children.

Fascinating is an adjective quite applicable to the volume, and it would be worth the reading even if one did not expect to be convinced of the correctness of Dr. Lewis' theory and explanation of facts.

C. C.

Index du Progrès Médical, 1909.

This is more than the usual index of a medical or any other publication, although it is sent to subscribers without extra cost.

It is divided into five parts, each part being sub-divided into numerous chapters, and consists of about 1,000 pages. Part I includes the laws, the hospitals, the colleges and the associations of Paris. Part II is devoted to the faculties and schools of the provinces and the colonies. The third part furnishes an official list of all the legal practitioners of France. The fourth part is an innovation, giving information regarding medical schools the world over, while the fifth part contains an immense amount of miscellaneous information interesting to all medical practitioners, though especially to those of France. Our colleagues of the *Progrès*, and especially the manager, Mr. Rouzaud, are to be sincerely congratulated upon their enterprise.

C. C.

The Emmanuel Movement in a New England Town. By LYMAN P. POWELL. G. P. Putnam's Sons, New York and London.

A most readable dissertation on the relation of the church to medicine, in which the author relates his personal observations and experiences in the practical application of wholesome suggestion to imaginary and real nervous derangements. Full of anecdote, critique and quotation, the book is of considerable interest to anyone who wishes to follow the steps of this religious movement aimed at serving in the field of labor of the physician.

DYER.

New-World Science Series. Human Physiology. An elementary textbook of anatomy, physiology and hygiene. By JOHN W. RITCHEY. World Book Co, Yonkers-on-Hudson, N. Y.

No small part of this little book is made up of the excellent illustrations by Miss Mary H. Wellman. These make the text more interesting and much better understood. Altogether this is the most practical, simple book on physiology we have ever seen, and if so much of it were not spent in damning alcohol it would be perfect. Every phase of a knowable subject is presented fairly and so clearly that even the child at school may read and learn.

DYER.

Medical Sociology. A series of observations touching upon the Sociology of Health, and the Relations of Medicine to Society. By JAMES PETER WARCASSE, M. D. D. Appleton & Co., New York and London.

The broad field of the relation of the public to medicine affords an excellent opportunity for a delightful and discursive text. Many questions are brought before the reader in a most readable fashion, including the obligation of the nation to the human race, as well as the questions of sex now so urgently before the people of this country. A plea is made for early instruction of the young in sex matters, and the ways in which it should be done are set forth. Normal habits and their cultivation are dwelt upon and the need of the education of the people in sanitary matters is showed. Much of the book is made up of separate essays, compiled with a view to create public sentiment and an interest in these economic questions for which the medical profession must always stand.

DYER.

Tuberculosis. A Treatise by American Authors. Edited by ARNOLD C. KLEBS, M. D. With Three Colored Plates and Two Hundred and Forty-three Illustrations in the Text. New York, D. Appleton & Co., 1909.

Dr. Klebs in his preface well says that "A continuous and systematic discussion of the whole subject of tuberculosis in all those phases of interest and value to the practitioner by a single author has become an impossibility."

The assignment to different authors of distinct phases of the subject whose particular familiarity allows them to speak with authority is commendable. While attention has been paid to the fundamental work done in other countries, it is to the work done in America that the fullest consideration is given, the treatise being wholly that of Americans—if Dr. Osler can at present be called an American.

The contributors are: Edward R. Baldwin, Resistance, Predisposition and Immunity, Individual Prophylaxis; Jarvis Barlow, Climatic Therapeutics; Hermann M. Biggs, Introduction to Prophylaxis; Lawrason Brown, Specific Treatment; Thomas D. Coleman, Tuberculosis Among the Dark-Skinned Races of America; Home Treatment by Sanatorium Methods; Leonard Freeman, Tuberculosis of the Lymph Glands, Primary Tuberculosis of Muscles and Facia, Tuberculous Ischiorectal Abscess and Anal Fistula, Tuberculosis of the Genito-Urinary System; Ludwig Hektoen, Tubercle and Morbid Anatomy; Richard H. Hutchings, Frequency of Tuberculosis in Insane Asylums; Arnold C. Klebs, Frequency of Tuberculosis, The Sanatorium—Its Construction and Management; S. Adolphus Knopf, Public Measures in the Prophylaxis of Tuberculosis; L. L. McArthur, Tuberculosis of Bones and Joints, Tuberculosis of the Brain and Its Membranes, Intestinal Tuberculosis, Tuberculosis of the Peritoneum; Charles L. Minor, Symptomatology of Pulmonary Tuberculosis, Physical Examination, Diagnosis; William Osler, Historical Introduction; Clemons von Pirquet, Tuberculosis in Childhood; Mazzyck P. Ravenel, Etiology—

The Tubercle Bacillus; Henry Sewell, The Physiology of Climate; Edward L. Trudeau, Introduction to Treatment; Gerald B. Webb, Specific Therapeutics of Mixed and Concomitant Infections.

The admirable X-ray plates furnished by Dr. Lewis Gregory Cole and taken with the patient recumbent are remarkable for their clearness and perfection of detail.

The work does not aim at encyclopædic completeness, but at the needs of the practitioner. To those who wish to further inform themselves about special questions not extensively discussed in the text a carefully selected bibliography has been provided.

We commend this work to the active practitioner.

STORCK.

Diet in Health and Disease. By JULIUS FRIEDENWALD, M. D., and JOHN RUHRAH, M. D. Philadelphia, W. B. Saunders Company, 1909.

In the present volume the same high standard has been maintained as that which obtained in previous editions.

The practitioner will find this treatise a practical hand-book for everyday use.

The work has been thoroughly modernized, additions having been made to the articles on tuberculosis, the salt-free diet, rectal feeding and the caloric needs of infants.

The work of Comer, Heubner and Finklestein on the caloric needs of children are briefly but well treated.

The Walker-Gordon laboratory standard as a guide to the quantity and quality of food required by the average infant is favorably mentioned.

The articles on alcohol have been rewritten and brought abreast of present-day knowledge.

The book is everything it is represented to be—a book “prepared to meet the needs of the general practitioner, hospital interne and medical student, as well as for a reference hand-book for training schools.”

STORCK.

E. Merck's Annual Report of Recent Advances in Pharmacy and Therapeutics. August, 1909.

It contains abstracts from reliable and progressive writers. STORCK.

Publications Received.

W. B. SAUNDERS & CO. Philadelphia and London, 1909.

A Practical Study of Malaria, by Wm. H. Deadrick, M. D.

THE YEAR BOOK PUBLISHERS. Chicago, 1909.

Practical Medicine Series. Vol. VIII., *Therapeutics, Preventive Medicine, Climatology*; Vol. IX., *Skin and Venereal Diseases and Miscellaneous Topics.* Series '09.

WORLD BOOK COMPANY. New York, 1909.

Primer of Sanitation, by John W. Kitchie.

LEA & FEBIGER. Philadelphia and New York, 1909.

Progressive Medicine, Vol. XI., No. 4. *A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences.* Edited by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D.

P. BLAKISTON'S SON & CO. Philadelphia, 1909.

Biographic Clinics. Vol. VI., *Essays Concerning the Influence of Visual Function Pathologic and Physiologic Upon the Health of Patients.* Geo. M. Gould, M. D.

THE McMILLAN COMPANY. 1909.

Bacteriology for Nurses. By Isabel McIsaac.

MISCELLANEOUS.

Transactions of the American Surgical Association, Vol. 27. Edited by Richard H. Harte, M. D. (William J. Dornan, Philadelphia, 1909.)

Index Catalog of the Library of the Surgeon-General's Office, U. S. A. Second Series, Vol. XIV. (Washington, Government Printing Office.)

Fifth Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis. (Published by Henry Phipps Institute, Phila.)

Pennsylvania Health Bulletin. Samuel G. Dixon, M. D., LL. D., Commissioner (C. E. Aughmbaugh, Pub., Harrisburg, 1909).

E. Merck's Annual Report of Recent Advances in Pharmaceutics, Chemistry and Therapeutics. Vol. XXII., 1908 (E. Merck Chemical Works, Darmstadt, 1909).

Hygienic Laboratory. Bulletin No. 57, Sept., '09. I. *The Presence of Tubercle Bacilli in the Circulating Blood in Clinical and Experimental Tuberculosis*, by John F. Anderson; II. *The Viability of the Tubercle Bacillus*, by M. J. Rosenau (Washington, Government Printing Office).

Anthrosteopedic Surgery—Extremities and Skeleton, by Stewart L. McCurdy, A. M., M. D. (Medical Abstract Publishing Co., Pittsburg, 1909).

Visceral Surgery in Abstract, by Acheson Stewart, M. D. (Medical Publishing Co., Pittsburg, 1909).

The American Society of Tropical Medicine—Papers Read Before the Society and Published Under Its Auspices. Vol. IV., 1909.

Nineteenth Annual Report of the Eye, Ear, Nose and Throat Hospital of New Orleans (Palfrey-Rodd-Pursell Co., Ltd.).

Index du Progres Medical—Journal de Medicine, De Chirurgie et de Pharmacie (Paris, France).

Reprints.

The Influence of the Olfactories and Digestion, by Geo. M. Niles, M. D.

Summary of Results Obtained, and Features of Interest, in Two Hundred and Fifteen Consecutive Cataract Extractions; Reflex Aural Neuroses Caused by Eyestrain, with Report of Cases, by Samuel Theobald, M. D.

Medical Libraries, II., 1909.

Diagnosis of Yellow Fever, with Special Reference to Mild Cases, by Dr. Mario G. Labredo.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR NOVEMBER, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	4	2	6
Intermittent Fever (Malarial Cachexia)	1	2	3
Smallpox.....			
Measles			
Scarlet Fever.....			
Whooping Cough.....	2		2
Diphtheria and Croup.....	1		1
Influenza			
Cholera Nostras.....			
Pyemia and Septicemia			
Tuberculosis.....	34	29	63
Cancer.....	20	8	28
Rheumatism and Gout			
Diabetes			
Alcoholism	2		2
Encephalitis and Meningitis.....	6	3	9
Locomotor Ataxia.....	4		4
Congestion, Hemorrhage and Softening of Brain.....	15	5	20
Paralysis	1	6	7
Convulsions of Infants	2	2	4
Other Diseases of Infancy	19	11	30
Tetanus.....	4	4	8
Other Nervous Diseases	2	3	5
Heart Diseases.....	48	27	75
Bronchitis	3	2	5
Pneumonia and Broncho-Pneumonia.....	20	17	37
Other Respiratory Diseases.....	6	1	7
Ulcer of Stomach.....	1	2	3
Other Diseases of the Stomach	7	6	13
Diarrhea, Dysentery and Enteritis.....	25	19	44
Hernia, Intestinal Obstruction.....	3	4	7
Cirrhosis of Liver.....	4	1	5
Other Diseases of the Liver	2	1	3
Simple Peritonitis	1		1
Appendicitis.....	2	1	3
Bright's Disease	34	19	53
Other Genito-Urinary Diseases.....	5	5	10
Puerperal Diseases	6	1	7
Senile Debility	10	9	19
Suicide	7		7
Injuries.....	23	18	41
All Other Causes.....	17	17	34
TOTAL.....	340	225	565

Still-born Children—White, 23; colored, 29; total, 52.

Population of City (estimated)—White, 265,000; colored, 97,000: total, 362,000.

Death Rate per 1000 per annum for Month—White, 15.39; colored, 27.53; total, 18.73.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.18
Mean temperature 67.00
Total precipitation 1.18 inches.
Prevailing direction of wind, east.

New Orleans Medical and Surgical Journal.

VOL. LXII.

FEBRUARY, 1910.

No. 8

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Reciprocity with the Louisiana State Board of Medical Examiners. Its Present Status.*

By FELIX A. LARUE, M. D., New Orleans.

As you all know the Louisiana State Board of Medical Examiners was created in 1894 by an Act of the Legislature; this medical practice act was slightly amended in 1896.

When the Board came into existence some fifteen years ago there were about a dozen Medical Boards in the United States which required an examination of all applicants. None had, I believe, at that time, the right to exercise any reciprocal action. I have not been able as yet to find out as to which State first adopted reciprocity.

It is useless to discuss any more as to the practicability of that long felt desideratum in medical licensure. It was argued pro and con by able and competent medical men. It is now generally conceded that reciprocity is a good measure and that it

* Read before the Orleans Parish Medical Society, November 8, 1909.

ought to prevail. The great difficulty, however, in carrying it out is due to the lack of uniformity in the medical statutes of the various States.

I have had the pleasure of being a member of the Board of Medical Examiners since 1898 and since then have had the honor of being Secretary of the Board. During my first years on the Board I must confess that I was not impressed with the idea of reciprocity, but as time went on, I, with most of you, realized the necessity of its establishment. So in 1908, ten years after the Board was created, the law was amended so as to authorize the Louisiana State Board of Medical Examiners to waive the examination in favor of any applicant who would present to the Board a certificate of examination from a Board of Medical Examiners of another State; provided that our Board, as per amendment of 1908, should find that the said Board of Medical Examiners of another State had a satisfactory standard of requirements. As soon as possible after this amendment went into effect, the Board took steps to meet this new condition and act accordingly. On September 29, 1908, two special meetings of the Board were called to take up the preliminary work of ascertaining and discussing the most important points of the recently enacted amendments to the Medical Law. On the following day two more special meetings were held whence resulted the first rules and regulations adopted by the Louisiana State Board of Medical Examiners governing the granting of a license without examination.

It was ordered that on and after October 1, 1908, applicants desiring to obtain licenses to practice in this State without having to submit to the examination would be granted same provided they complied with the following conditions: 1. Appear in person before the Board. 2. Present a diploma from a college rated class A by this Board (i. e., medical colleges rated between 70 and 100% by the Council on Medical Education of the American Medical Association). 3. Present their certificate of examination by and from a State Board of Medical Examiners recognized by our Board. 4. Furnish satisfactory proof of their identity. 5. Give satisfactory evidence of good moral character. 6. Pay a fee of twenty-five dollars.

N. B.—Physicians possessing the above qualifications and desiring to begin the practice of medicine in this State between the

regular meetings of the Board, were permitted to do so by appearing before any one member of the Board, paying a fee of \$10, said fee being deducted from the fee exacted by the Board for a permanent license.

Said temporary permit was valid until the subsequent regular meeting, when a permanent license was issued, provided the applicant appeared in person and paid the balance of the fee (\$15).

Diplomas issued prior to October 1, 1908. from colleges whose diplomas had been, prior to said date, accepted by the board, were recognized to the same extent as though issued by colleges in class "A." when the holder also presented a certificate of examination issued prior to October 1, 1908, by and from a State Board of Medical Examiners of a standing satisfactory to the Louisiana State Board of Medical Examiners. We began by recognizing certificates of examination from the following State Boards: Colorado, Connecticut. Delaware, District of Columbia. Illinois. Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, South Carolina, Texas, Utah, Vermont, Virginia, Wisconsin.

Applicants holding a diploma from a foreign reputable medical college had to present in person said diploma with satisfactory proof of its genuineness. Satisfactory identification and evidence of good moral character were exacted; also a certificate of examination by and from a State Board recognized by the Louisiana State Board. Similar provisions, as for other applicants, were made concerning temporary permits and fees. We have a printed list of the medical colleges which we recognize. I have personally given much time to this all important question, and when in Chicago a year ago I conferred with Drs. Bevan and Colwell of the Council on Medical Education of the American Medical Association.

The plan of classifying medical colleges according to their rating met with the approval and unanimous endorsement of the Louisiana State Board of Medical Examiners. We necessarily needed a working basis and none better could be found than the rating given out by the Council on Medical Education. There were, including Hawaii. Philippine Islands and Porto Rico. 52 Boards of Medical Examiners in existence at the time we inaugurated the so-called reciprocity measure.

You heard me read the names of the 28 Boards whose certificates we formally accepted according to the regulations adopted October 1, 1908. We arrived at that number by eliminating those States that, first, did not require a diploma as a prerequisite for examination; second. those that required less than a four year medical course; third. that had no reciprocity; fourth. that gave out no specific information on this point.

Every one must admit that the Louisiana State Board of Medical Examiners showed magnanimity in so opening our medical door. We began by this generous impulse trusting that all the States enumerated above would act in like manner towards us. We were somewhat disappointed. as the sequel will show. Very few states seemed inclined to accept our open proposition. In justice to the medical practitioners in Louisiana we had to hold back the reins of hospitable welcome so that at the meeting of the Board held in May, 1909, the rules and regulations adopted at the previous meeting were partly rescinded and the following, which are now in force, substituted:

"On and after June 1, 1909. the Louisiana State Board of Medical examiners will grant a license, without examination, to applicants who will comply with the following conditions: 1. They must furnish the Board. through the Secretary, with the application form properly filled out together with a recent unmounted photograph, and, if found eligible. (2) they must appear in person before the board; (3) they must present a diploma from a college rated Class A by this Board (i. e. medical colleges rated between 70 and 100% by the Council on Medical Education of the American Medical Association). (4) They must present their permanent certificate of examination by and from a State Board of Medical Examiners recognized by the Louisiana State Board of Medical Examiners, and have practiced medicine for at least one year since they obtained said license. (5) They must present a sworn statement, either from the dean of the college from which they graduated, or from the secretary of the parish or county society in which they reside. or from the clerk of court of the parish or county in which they reside, certifying to their moral and professional character and their personal description as to weight, height, complexion, color of hair, and any marks of identification, etc. (6) They must pay a fee of \$25.

Physicians complying with the above regulations, and who may enter the State between the regular meetings of the Board and desire to practice medicine in this State, may be permitted to do so by appearing before any one member of the Board, paying a fee of \$10, said fee to be deducted from the fee exacted by the Board for a permanent license. Said temporary permit shall not be good longer than the beginning of the next regular meeting, at which time a permanent license will be issued, provided the applicant appears in person and pays the balance of the fee (\$15).

The same rules, as adopted in October, 1908, prevail concerning applicants with a foreign diploma, with the additional proviso that they have practiced for at least one year since they obtained the permanent license from a Board with which we are in reciprocal relation.

As you see, the new regulations for the obtention of a license without examination are more complete and drastic. You also notice that applicants, who graduated prior to October 1, 1908, from colleges not included in Class A or B, cannot now obtain a so-called reciprocity license. Furthermore, and that is what we think the best provision in our latest regulations, placing a premium on a diploma from a first-class medical college, the Board waives the test of examination *only* to applicants who can present, with the other provisions, a diploma from a college rated Class A by the Board (i. e. medical colleges rated between 70 and 100 per cent. by the Council on Medical Education of the A. M. A.) The Medical Department of Tulane University is so rated, and we cannot justly accord to any medical college that privilege if its rating is not the equal of Tulane.

Now, gentlemen, let it be well understood that therein lies no partisanship, but only fairness and equity, and I, personally, as a member of one of the Tulane faculties, wish the attitude of the Board to be known.

Regarding this particular point I would like to read to you an abstract from the Educational Number of the *American Medical Association Bulletin* for September, 1909 (page 14): "As usually provided in the State practice acts, reciprocity is a discretionary measure, licenses under that measure to be granted only when the board is satisfied that the applicant in every way comes up to the standard fixed by the practice act. It sometimes occurs

that an applicant who has failed repeatedly before one board goes elsewhere and passes, then reapplies to the first board for a license through reciprocity. Several boards under such circumstances have very properly refused to issue licenses, and have demanded that such applicants pass their own examinations. Another board, of Louisiana, has recently published a list of medical colleges which are considered satisfactory, and has barred graduates of all other schools from registration through reciprocity. Such procedure by the boards makes reciprocity in their hands a powerful influence for higher standards."

I have good reasons to know, in fact am permitted to state that a favorable comment, concerning our efforts, would have appeared in the November issue of the *New Orleans Medical and Surgical Journal* had it not been crowded out by an over abundance of material.

Communications, setting clearly our recent actions, were sent to every State Board. The first reply of acceptance came from far-off Kansas, followed by Colorado, Wisconsin, Missouri, Indiana, Virginia, New Hampshire, and quite recently from Minnesota and Arkansas—ten states in all.

The latter State lately made a move in the right direction by having a good medical law passed, eliminating that feature of the old law which permitted undergraduates to appear before the Board. I may state here that the neighboring State, Mississippi, not distant Tennessee and far off Massachusetts are the only three States which admit at present undergraduates to their examinations.

We are now considering the subject of reciprocity with Alabama. I am led to believe that Kentucky will soon adopt some reciprocal agreement with our Board.

I am in possession of a letter of recent date from Augustus S. Downing, First Assistant Commissioner of Education for the State of New York, in which he says: "I note what you say in regard to the question of the establishment of reciprocity between Louisiana and this State on the basis of passing on each individual case. I will take up this matter with the Board of Medical Examiners of this State at an early date."

The Louisiana State Board of Medical Examiners is to-day ready to grant a license without examination to any applicant from

the above mentioned ten state boards providing he can comply with the rules and regulations adopted by our Board on May 20, 1909.

We do not ask any more from Boards who are willing to reciprocate, but each and any of them may exact any supplemental examination or credential if they so see fit. It must not be forgotten that this so-called reciprocity is, as elsewhere mentioned, a discretionary and not a mandatory measure.

In a little book containing a resume of the conditions or legal restrictions of medical practice in the several states and territories of the United States, published by the American Medical Association, the following appears: "The ideal basis for reciprocity would, of course, be uniform—and, therefore, equally high—standards enforced in all the states. As conditions now exist a number of states having comparatively equal standards have arranged for reciprocity on one or both of the two following bases: (1) On the basis of a written examination by a State Examining Board, and (2) on the basis of a diploma from a recognized medical college without examination.

1. ON THE BASIS OF AN EXAMINATION: This basis is acceptable to a larger number of states than the second. Applicants must have passed a written examination before another examining board and received his license to practice medicine.

2. ON THE BASIS OF A DIPLOMA: This basis is mostly for old practitioners and applies only where the applicant was registered in another State prior to the date when the State receiving him through reciprocity required an examination. For example, a physician of good repute was registered to practice medicine in Nebraska in 1880. For good reasons he desires to change residence to Minnesota. Taking for granted his credentials are otherwise acceptable, he is eligible to registration in that State through reciprocity, since Minnesota did not require examination of all applicants until January 1, 1887. Those who registered in Nebraska since January 1, 1887, would not be eligible to register in Minnesota through reciprocity unless they could register on Basis No. 1. From authentic source we learn that the following twelve states do not reciprocate: Arizona, California, Florida, Hawaii, Idaho, Massachusetts, Mississippi, Montana, Oregon, Rhode Island, South Dakota, Washington.

It is to be regretted that, according to our Statute, we are powerless to grant a license to an old and reputable practitioner of another State unless he holds a certificate of examination from a Board with which we reciprocate. It certainly entails a great deal of hardship for such a one.

A great many states are adopting that plan and it certainly appeals to me as being fair. The applicant, who graduated before the State Board of his State was created, and who is otherwise well qualified to practice in his State, ought, to my mind, be accorded entrance without examination on the basis of his diploma. We must be practical and not arbitrary. The entrance of such an applicant into the State could be guarded by also exacting some credentials of the highest reference, such, for instance, a certificate of professional standing from the Secretary of either the Board of Medical Examiners of his State or of his county or parish Medical Society.

If this plan meets with the approval of our professional body an amendment pertaining to this point will have to be incorporated in our present Medical Law at the next session of the Legislature.

Now, gentlemen, I have taken up more of your time than I had anticipated; in fact, I had told Dr. Butterworth that I would be very brief. You will pardon me for dilating on this subject which is, however, of such vital consequence to the medical profession and of which, like all questions pertaining to the Medical Practice Act, I am particularly fond. We surely have not reached the ideal nor has an other Board, but of one thing we are certain, and that is we have not lagged, but have steadily uplifted the standard of our Board, i. e., of Medical Education.

Some Pathological Facts About Malaria.*

By O. L. POTHIER, M. D., New Orleans.

I should probably apologize to bring up such a subject as malaria, when it has been studied in all its phases. But certain pathologic conditions have struck me forcibly in my service at the Charity Hospital, and I thought they might interest some of you. It will be useless for me to go into the history of the disease as it is familiar to all, nor will it be necessary to consider the life cycle of the protozoon which produces the disease. It would be a waste

* Read before the Orleans Parish Medical Society, November 22, 1909.

of your time. But before dismissing the subject, I will say that though the majority of authors agree on the multiplicity of the malarial organism, many yet adhere to the opinion of Laveran in the unity of parasite. Many facts are advanced in support of the former view, such especially as the coincidence of the paroxysm with the segmentation of the parasite. Yet it is difficult to explain why in certain cases we find the different varieties at once in the same individual. These findings are generally ascribed to mixed infection. Then the majority of malignant and perinicious types should be classed as mixed infection, for it is in these cases that we find these varieties of organism. Though I am not prepared to answer positively this question. I am inclined to believe in the unity of the parasite, and to consider that the varieties are due most probably to the degree of resistance of the individual in whom they developed. Be that as it may the subject needs more study before it can be absolutely settled, and I will take up other pathologic features of the disease.

The pathologic lesions of malaria are referable to the acute, chronic and a special state the cachexia. I do not intend to enter into a detail of description of the center lesions as this would be useless. In the acute form we find anemia, melanemia, pigmentation, lesions of the hematopoietic organs, thromboses and emboli due to pigment or parasites. The blood in the acute cases presents a rapid destruction of the red blood corpuscles, reaching in some cases as much as one million in twenty-four hours, during the paroxysm, the hemoglobin diminishing in same ratio as the corpuscles. The corpuscles show polychromatophilia and poikilocytosis. In severe cases nucleated corpuscles are found, showing reaction of the blood forming organs. In the more perinicious forms a characteristic degeneration is found in which the corpuscles are swollen, irregular, and appear as dark brass colored disks, as described by the Italian author. The white corpuscles at first seem to diminish, but this is followed by a rapid increase reaching as high as 20,000 per cubic m.m. The mononuclears are in excess and they seem to be the phagocytes in action. It is a fact to be remembered that the administration of quinin increases also the mononuclears. There is a lesser amount of fibrin and the blood from malarial patients does not coagulate as rapidly as usual.

The lesions of the liver and spleen in the acute cases are well

known and I do not think it is necessary to describe them, except to say that these organs are always enlarged.

The pigment of malaria is characteristic, at first found in the blood, as the result of the destruction of the red blood corpuscles and segmentation of the organism, it is carried to the different organs. It is conveyed by the lymphatic as well as by the blood vessels, and it invades the different organs where it becomes deposited and gives the peculiar gray color to the different viscera. Besides melanine, Kelsch and Kiener have described a peculiar yellow pigment, which is not peculiar to malaria however, as it is found in all diseases where there is a rapid destruction of red blood corpuscles. It is found in this case associated with melanine, the latter being characteristic of malaria. These pigments both contain iron, but the exact chemical composition of either is not well known. The foregoing is only a rapid description of the most prominent lesions of the acute form of malaria. It is more especially to the chronic form and the cachexia that I wish to call your attention. No doubt a number of conditions have been laid down to malaria without foundation but still there exist some pathologic conditions which are attributable to malaria and that cannot be explained otherwise. Persistent anemias, which have been reported by the French in the Senegal and that we observe in this locality are no doubt of malarial origin. These cases do not usually exhibit the presence of the malarial organism, but are the expression of lesions, malarial in character, of the blood forming organs. The anemia of these cases is at times extreme the red blood corpuscles falling to 1,000,000 per cubic m.m. the patients presenting oedema of the extremities, at times accumulation of fluid in the different cavities. The external appearance of the patients presents the peculiar ashy color of the surface and a muddy hue of the skin. Frequently these cases will be mistaken for Cirrhosis of liver or nephritic conditions. In fact the lesions at the autopsy will present a form of Cirrhosis of liver which simulates the hypertrophic type. The liver is usually large, at times normal in size, but presents an increased amount of connective tissue. There is a chronic congestion of the organ which produces dilatation of the capillaries. Every where the liver cells are found filled with pigment. Accompanying which we find frequently a chronic diffuse hepatitis, or a nodular appearance simulating adenomatous conditions. It is rare that the organ is diminished in size.

The spleen in such cases is enlarged, hard, fibrous. The capsule is thickened and the parenchyma of the organ presents large heavy bands of fibrous tissue. The pulp is rather firm of a dark red color recalling muscular tissue, more than spleen. It presents at times Interstitial hemorrhages. The pigmentation of the organ is also well marked. So is that of the bone marrow, which participate also in changes which are characteristic of the disease, pigmentation being the most characteristic.

The kidneys are usually large, hard, presenting also pigmentation, especially the epithelium of the convoluted tubule. Dilatation of the capillaries, and passive congestion, many cases presenting a glomerular nephritis, though the diffuse is more common.

These are the lesions that one encounters more frequently in these cases, often diagnosed as Nephritis, or Cirrhosis of liver. They are undoubtedly true cirrhoses of liver and true nephritic cases, but the result of previous malarial infection, in which the repeated paroxysms produce the permanent lesions of the different organs which finally produces death of the individual. This state of things may take place without any acute manifestations, in what are known as the afebrile types, in which the parasite has been demonstrated without any paroxysm. I remember seeing such a case at the Charity Hospital this summer, in which the blood was filled with parasites and yet there never was any febrile paroxysm. This condition of cachexia and pathologic changes in the viscera, are also found in many of the residents in malarial district without any acute manifestations. It explains the frequency of Cirrhosis of the liver and nephritic conditions found in tropical and sub-tropical countries.

Added to these more classic manifestations of malaria may be added a few exotic conditions such as hematuria, conditions simulating scurvy and varieties of ocular diseases such as simple and serpiginous keratitis. We find also gangrene of the extremities, and different nervous conditions, all of which have been found as the result of malaria, are associated with it.

Before concluding I wish to say a few words concerning the immunity to malaria. The majority of authors on malaria seem to consider that the dark races are more immune to the disease than the white race. I doubt if we could support this view here. Another point worth while studying as we have the opportunity to do it.

Again it may be that this apparent immunity in certain subjects is due to the absence of acute manifestation while they are being undermined by organic changes due to chronic infection. All of which are points to be elucidated. Though we must admit that there must be some naturally immune to malaria as to other diseases. Again it is a fact that quinin though specific for malaria has a tendency to diminish the resisting power of the individual to subsequent attacks, in other words does not enhance immunity, and quinin treated cases, require a longer time to acquire immunity, than those not treated.

From the above I would conclude that the eradication of malaria in tropical countries, would at the same time remove those cases of chronic anemia with hepatic and nephritic manifestations, which swell the list of diseases classified as cirrhosis of the liver and Bright's disease.

Hydrotherapy.*

By T. S. DABNEY, M. D., New Orleans.

In choosing hydrotherapy as the subject of this paper, it is not my intention to endeavor to teach you anything new on the subject, but rather to call to your earnest attention and consideration one of the oldest of all Therapeia's weapons. Nowhere is it truer than in medicine that men in their great eagerness for something new forget the old, and though but few really new things are discovered, the rediscovery of the old occurs with each recurrent century. So much is this the case in medicine that it would not be far of the mark to say that more has been forgotten in medicine since the days of Hippocrates than has been added to it. Fortunately for us, these truths are constantly being discovered and rediscovered by those of our profession looking for novelties. All of you are aware, when you, being puffed up with a mighty conceit, at having discovered something new, hasten to enlighten the world through a paper. However, after looking up the literature of the subject and finding yourself some 10 or 20 centuries too late, you quietly proceed to bury your ambition this time and determine never again to discover anything hoary with age. How true this is of hydrotherapy any one can easily satisfy himself by

* Read before the Orleans Parish Medical Society, November 22, 1909.

referring to the vast literature on the subject. I hope you will pardon me for giving, a little later on, a brief history of the very many battles that had to be fought for hydratics in almost every country of the world. It is hardly necessary to deny originality in these little historical sketches. To Simon Baruch and others are due the credit of collecting and publishing many of the interesting facts relative to the discovery and rediscovery of the value of water as a therapeutic measure. To them am I indebted.

Before entering upon the subject proper I would like to show by analogy, the cause of the undeserved disrepute into which hydratic measures again and again fell into disrepute. In one hundred or more years from now some gifted member of our calling, while sitting beside a patient with bounding pulses, livid face and turgid and throbbing carotids will rediscover venesection once, and deservedly so, a very popular measure, which has sunk into undeserved disrepute on account of its having been used in season and out for any and every disease, without any reference to its pathology. No remedy is a cure-all. The character of Dr. Sangrado in Don Quixote put a quietus on venesection, which has practically lasted to our day though there are still some physicians who read, observe and think for themselves, that avail themselves of this most valuable therapeutic aid. The rank and file of the profession follow blindly in the wake of the bell-weather of the profession and accept or reject what they say or, rather, write.

Irrational and massive drug medications combined with ignorance of the physiological effects of the drugs used, as well as the pathological conditions they were supposed to combat, brought forth the school of Hahnemann on the one hand and Nihilism, with its expectant treatment, on the other hand.

The profession, however, is under lasting obligations to the founder of small dosage and palatable medicaments.

So, also, our ignorance of the value of water as a therapeutic agent in controlling pathological conditions has brought forth that spawn of charlatans styling themselves hydropaths, and has caused to spring up all over the land, water cures. The recrudescence of the water cure, so far as we are concerned, being due to that long-headed old German priest, Kneipp. All of us realize the therapeutic value of the innumerable wells and springs, I mean the so-called medicinal ones, which annually sweep our best-paying pa-

tients out of their comfortable homes and their golden ducats from our bank accounts. We also appreciate the sad fact that much coin is diverted from our atrophic pocket-book by the innumerable balneological institutions. The ocean greyhounds annually carried thousands of our patients to these establishments, notably to those in Germany. Though we know that fully 99% of the benefit derived from these baths is due to the water as water and in spite of their mineral ingredients, though judging by their alleged analysis, they seem to contain about every known salt; yet, in spite of our knowledge we sit idly by and, like Micawber, wait for something to turn up.

Something has at last turned up and to the honor of Germany and her broad-minded, clear-reasoning physicians is due the wakening in our minds of the inestimable value of water as water, pure and simple, as a most powerful ally in our fight against disease. In thus publicly acknowledging our debt of gratitude to Germany I do not wish it to be understood that to Germany belongs the initiative; for the Sage of Cos fully appreciated the value of hydratherapy, though in a limited field. He used it skillfully and successfully in many diseases and urgently advocated its use. According to Baruch, Asclepiades, Cicero's physician, and many of his disciples, such as Celsus and Caelius Aurelianus, were earnest advocates of hydriatics.

The numerous immense and costly baths of Italy, built at this time, when the rich and poor alike could avail themselves of this delightful handmaid of Hygeia attest alike the influence on the times of these great hydratherapeutists and the lavish munificence of the Roman rulers. No greater monuments exist to-day to many Roman emperors than those vast and magnificent bathing establishments.

According to Suetonius, both Horace and his illustrious patron, Augustus Cæsar, were cured by cold baths, prescribed by Musa, a disciple of Asclepiades.

Skipping from the 1st to the 7th and 8th centuries, I come to Paulus Aegineta, who lived in both those centuries, and who was easily the most advanced hydratherapeutist of his day, and indeed, he was in advance of most of us today, as he had the nerve and knowledge not only to treat insolation with cold water, but also anuria. All of us have made the startling discovery in recent

years that cold water is of great value in the treatment of sun-stroke; but I fear it will take another century for some of us to dare to use it in anuria or any very grave kidney lesion, and this in spite of the fact that most of us know its great value in such cases when given in a normal saline enema. In the 17th and 18th centuries cold ablutions were freely used by the best physicians, not only in ordinary fevers, but in the exanthemata and rheumatism.

Are there not some of my colleagues here to-night who would hesitate to use the cold bath freely in articular rheumatism and variola? It matters not how high the temperature of the patient. Thedin, Frederick the Great's physician, Hufland, who offered a prize for the best essay on the action of cold water in fever, Huhn and Prof. Froetsch, physician of the Emperor of Austria, and winner of the Hufland prize, all practiced hydrotherapy and in and out of season advocated its use. In spite of this fact and in spite of the influence of the two reigning German monarchs at that time, water failed then as to-day to become popular as a therapeutic measure in the hands of the regular profession and it remained for a charlatan, of the peasant class, by the name of Priesnitz, to bring it into immediate and immense vogue. So great a furore did the cures of this German peasant water-doctor cause that patients from all quarters of the globe flocked to his cure. According to Baruch, nearly 1,600 patients were treated by him in 1840. So loud were the praises of this cure that many foreign physicians visited it and studied his methods.

In Germany, stolid, practical, conservative Germany, his adherents were chiefly laymen, as the ethical physicians of that country scorned to learn from a charlatan, being utterly oblivious of the fact that that very peasant had derived all of his information from reading the writings of eminent German physicians.

While the practical, but unlettered German peasant water-doctors were reaping a golden harvest, their scholarly and ethical compatriots were gathering in a short crop of silver. However, all of the German physicians were not asleep. Though the use, or rather some of the uses, of water were popularized by an empiric, yet to Prof. Winternitz of Vienna do we owe most of our present day knowledge of the scientific uses of water in pathological states. Prior to his time they were purely empirical and lacked

a physiological basis. Winternitz, with his well-trained mind and his German thoroughness, sought the rationale of the treatment. Winternitz was the first to demonstrate that the primary effect of water upon the skin was upon the nervous system and that its antithermic effect was secondary. He, at his own expense, established the first hydratherapeutic clinic, where he yearly demonstrated to his pupils the physiological effects of water.

Medicine, like the ocean, has its tides, which ebb and flow. In medicine these tides are called fads, and like the ocean, at high tide, they sweep everything before them and obscure the intellectual vision of many of our leading physicians, especially of professors and near-professors, who oblivious of St. Paul's advice seize with avidity every new fad, discarding with utter recklessness the old and proven, to run after strange gods.

Such a fad was the antitoxic therapeusis, which threatened for a time to overthrow all other therapeusis. Winternitz, however, though a professor, refused to abandon the proven, and held fast to what he knew to be true in hydriatics. At the present time the antitoxin enthusiasts, having failed to cure every toxic state with an antitoxin have, like the ocean, subsided.

Winternitz, without claiming any antitoxic virtue for water, stoutly maintained that it was a powerful adjuvant to nature in eliminating the various toxæmias by improving cardiac action, vivifying the nervous system and aiding oxidation.

And this is the scientific basis of hydrotherapy, and as long as human bodies are such a complex of glands, nerves, muscles, blood-vessels, organs and cells, on this basis it will stand as a monument to Winternitz, and as a boon to suffering humanity.

Italy had a similar experience to Germany in having an ignorant peasant priest exploit water, using cold water and baths. One Bernado, a Maltese priest, having read Savonarola's work on hydrotherapy at once became an enthusiast on water, opened a "Cure" and soon attracted vast numbers of patients. His claims were so extravagant and his success so great in suitable cases that soon a vast array of incurables of every kind flocked to him and as infallibility is not an attribute of Italian water his very success was his undoing and his cure fell into disrepute.

This Pater Bernado, like his German imitator, Pfarrer Kneipp was shrewd, if ignorant, and besides using water freely, insisted

upon the simple life. His patients retired with the sun and arose with the sun. Their fare was very frugal and all forms of stimulation and excitement were avoided and his successes are easily accounted for.

However in Italy for 100 years the regular profession refused to take any stock in efficacy of water in disease. In wide-eyed, critical, fair-minded trance the skepticism in reference to the value of hydriatics continued practically up to the middle of last century.

Owing to the strict laws in France it was impossible for priests or peasants or other unqualified parties to practice medicine in any manner. Indeed the regular duly qualified and licensed physician was not allowed to start anything out of the beaten path without the governmental investigation and sanction. In 1839 Drs. Engel and Wertheim duly licensed practitioners petitioned the French government for permission for a hydropathic institution. Strange as it may seem the petition was referred to the French Academy of Medicine by whom it was referred to a committee of three of its most distinguished members, Bouillieaud, Velpeau and Roche. This committee in its report, using the words of Roche, classed it as "dangerous, unscientific, chimerical and opposed to the simplest laws of physiology and pathology."

The 60 members present of that distinguished and learned Academy, adopted the report of its committee and rendered an adverse report. The government thereupon promptly denied the permission sought; but it reckoned without its host, for Wertheim demanded a bedside test which was granted.

Hydrotherapy was then used, under strict surveillance in Hospital St. Louis and with such convincing results that a favorable report was made and the sought for permission was granted.

The French, like the Missourians, having been shown, promptly accepted the truth and straightway many men of distinguished scientific training entered enthusiastically into the new (!) treatment.

England, on the other hand, owing to the peculiarity of her hard headed islanders, who seldom think any thing good originate outside that tight little island, continues, practically, up to the present time in a skeptical frame of mind. England's attitude in this matter is all the more remarkable by reason of the fact that in 1697 Floyer, a prominent English physician, ardently advocated hydro-

therapy and wrote an excellent work on the subject, which was translated into German and had a great vogue in that country causing the great Prof. Friedrich Hoffmann to take up the propaganda of water and through him the virtues of water were sent all over Europe. Two other well known Englishmen, Currie and Wright vainly strove to teach their compatriots the value of water in fevers.

Currie's work was translated into several languages and was favorably received everywhere except in England, hard headed incredulous England, Currie's treatment of fevers as introduced into the Vienna hospitals by Joseph Frank was really the precursor of the Brand method.

To Brand and his method of treating typhoid fever with the cool (65°) bath do we of this country owe the impetus given to hydriatics, and though Brand's work was published in 1861 we failed to grasp its immense importance until Dr. Simon Baruch took up the propaganda in America and then, as if to make up for lost time, we rushed so madly into the tubbing habit and made so many modifications of it, even making the water colder and colder that we very nearly brought that treatment into disrepute. Most of us thought, in our ignorance that the sole value of the bath was its antithermic quality, instead of its antifebrile, consequently we substituted the cold bath for the cool bath. Then from cold baths followed iced sheets, ice water and finally ice itself, with the inevitable result of creating a sentiment violently hostile to the water treatment in the minds of the laity. We ourselves, by our deceptive method of taking the temperature in the mouth or axilla, were often lulled into a sense of false security. I am happy to say that state of blissful ignorance has given way now and most of us know now that the pyrexia itself, though it may not always be conservative, is not the really dangerous element in this disease. In other words a case of typhoid fever today is not regarded as necessarily grave in proportion to its pyrexia. We realize that the danger lies in its toxæmia and whatever lessens that by stimulating the vascular system, and increases the action of the emunctories, will necessarily cause elimination of the toxic substances and thereby alleviate the fever.

It is not my aim to go into the treatment of disease by water and I only introduced its use in typhoid, because to that disease prac-

tically are we indebted to the introduction of hydratherapy into general practice in the United States. I simply wished to call your attention to hydratherapy in the hope that Tulane would soon have a chair and a clinic on that branch. We have had a professor from time immemorial on materia medica and therapeutics. Then the application of electricity in its various forms has been taught our students, but we need hydrotherapeutics as well as drug therapeutics and electro therapeutics and I hope to see this branch of the therapeutics taken up and taught as it is in many German and in a few American Schools.

This is my plea for bringing this subject before you tonight. I am not an enthusiast on any line of treatment, but avail myself of every known means to alleviate human suffering and I could no more practice medicine without the aid of hydriatics than obstetrics without forceps.

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Early History of Anesthesia.*

By CARROLL W. ALLEN, M. D., New Orleans.

(Notes from the opening lecture on Anesthesia delivered in the Dental Department, Tulane University.)

The subject we have to concern ourselves with, is anesthesia. It is a very interesting and a very practical one. It is one of the foundation stones upon which modern surgical practices have been built, whether dental, surgery or general surgery.

Upon the tripod of asepsis, hemostasis and anesthesia has been developed the tremendous progress of recent times. Anesthesia, as we understand it today, is of comparatively recent origin. The first dental operation on record was in 1844, when Horace Wells, a dentist of Hartford, Conn., had a tooth extracted painlessly by a confrere. We will say something about this later.

The use of drugs as anesthetics was known to the ancients, who practiced anesthesia in a crude way for painful procedures. The ancient Egyptians, Hindus and Chinese were familiar with many vegetable substances which, when taken, induced sedative, anodyne or hypnotic affects.

The Bible and Talmud also contain reference to inducing torpor or deep sleep by artificial means. The drugs which they used were probably atropa mandragora, cannabis indica and the juice of the poppy (opium). At a later period, in the Middle Ages, mandra-

* Read before the Orleans Parish Medical Society, November 8, 1909.

gara figured largely in the anesthetic mixtures; one in use during the Celtic period was known as "potu oblivious." As we know, the Middle Ages was a period of deep superstition and old manuscripts contain many queer and interesting accounts of the practices in vogue at the time for the gathering and preparation of the hypnotic herbs. Particularly was this so about the gathering of mandragora. This root had a fancied resemblance to the shape of the human body, having a trunk and several roots which resembled limbs. Superstition has it that this human-like plant upon being uprooted gave forth such hideous cries that no mortal man could hear them and live. Various superstitious practices were resorted to in gathering this root to prevent the fatal effects of its cries, thus one account gives the following receipt, "To gather ye mandragora, go forth at dead of nyght and take a doge or other animal and tye hym wyth a carde unto ye plante. Loose ye earth round about ye roots, then leave hym, for in his struggles to free himself he will tear up ye roote, whych by its dreadful cryes wyll kyll ye animal."

Another receipt advises that a horn be blown during the struggling of the animal to drown the cries of the plant. The literature giving accounts of these times is full of ridiculous practices indulged in, but the above serves as an illustration.

Local anaesthesia, though probably imperfect, was not unknown in the middle ages; various sedative, anodyne and benumbing drugs, usually including a large part of opium, were made into mixtures and rubbed into the parts to be operated upon.

Partial or complete insensibility was also produced by compressing both common carotids and by thus arresting the supply of blood to the cerebrum insensibility was obtained. This method was also used by the Japanese who practiced it up to recent times.

When we come down to modern times we find that the anæsthetic properties of two of the most generally useful anesthetics, nitrous oxide, or laughing gas, and ether were both discovered accidentally. They were both known for many years and used by scientific men for experimentation and by others for amusement until by accident their true value became known. The young people of the time would give what they called ether parties in which some of them for the amusement of the others would inhale the vapor of ether when they would say and do queer things and lose the power of muscular coordination, this as we now know is the first stage of

anesthesia or stage of excitement; they seldom went beyond this stage, though occasionally complete insensibility was produced. This was of course a dangerous form of amusement, but it served its purpose by bringing ether before the public, medical men were occasionally present at these gatherings and observed that injuries were unconsciously sustained by the participants during their antics; thus limbs were occasionally broken or disarticulated without pain or knowledge on the part of the victim until he came out from the effects of the vapor. Thoughtful physicians soon put this knowledge to practical use and thus the birth of surgical anesthesia was ushered in; Dr. Crawford Long of Georgia was one of the first to make a practical application of ether, this was in 1842.

The next step in the evolution of anesthesia was in 1844. In this year Dr. Horace Wells, a dentist of Hartford, Conn., was present at a popular entertainment, given by a lecturer on chemistry, and noticing as Long had done in the case of ether, that one of the audience who had inhaled "laughing gas" (it was then as now the custom to call on the audience for volunteers, etc.) had unconsciously sustained injuries whilst under its influence, he determined to test its merits as an anesthetic in dentistry.

He accordingly inhaled some of the gas, and a friend of his extracted a tooth without the slightest pain being experienced, when he recovered he exclaimed "A new era in tooth pulling."

The results were so marvellous that Wells immediately began to employ nitrous oxide in his own practice, and so convinced was he of the importance of his discovery, that he soon gave a public demonstration of his discovery in the surgical theatre of the Harvard Medical School.

Owing, however, to the want of knowledge, which necessarily prevailed as to the principles upon which the administration should be conducted, the demonstration proved a fiasco, and both Wells and his anesthetic fell into undeserved discredit.

For some time, however, Wells continued to employ nitrous oxide in his practice and with considerable success; but so keenly did he feel the contumely of his fellows and the failure of his hopes and schemes that in 1848 he suicided. It is stated that he opened a vein in his arm whilst in his bath, at the same time securing euthanasia by the inhalation of ether vapor. This tragic and pathetic ending put at rest for a time further use of this

agent, but truth was not to be downed, and in time others took up nitrous oxide and with further knowledge of its use gradually gathered through experience put its administration upon a firm and scientific basis, thus giving unto Wells the credit due him by establishing the truth of his contentions.

Such is the history of the dawn of modern surgical anesthesia. With their use once firmly established the news spread rapidly; with ether it was known as the "ether process for removing pain." And the first operation under this agent was performed by James Robinson, a dentist in England, in 1846, who extracted a molar tooth.

Chloroform and other anesthetics were soon after introduced and had a much easier road to travel, it was simply necessary to prove their claims as anesthetics and demonstrate their safety.

Before closing these remarks on the early history of anesthetics it may prove interesting to say something about mesmerism or hypnotism. From the earliest ages it has been known that certain men possessed such peculiar power over the minds and bodies of others as to throw them into a deep sleep at will. Certain magnetic power of healing diseases has also been credited to the priest-physicians of some of the ancient races, the Egyptian, Persians, Hindus and others.

About the middle of the 17th century (1661) England was stirred by these apparently supernatural powers possessed by an Irishman by the name of Greatrakes, and many scientific men of prominence witnessed and attested to his power of producing sleep in others and curing disease.

In 1778, Mesmer, a scientist of some prominence, created great excitement in France by his demonstrations, which were called mesmerism, and Mesmer's disciples claimed that painful operations were performed under this influence. Others took up this study, and the interesting records show that a great variety of dental and surgical operations, some of them of a severe nature, were performed under this influence. And from time to time since then hypnotism has been similarly applied; but as success is only obtainable with certain subjects, and as there are numerous moral objections to the system, hypnotic anesthesia is now generally regarded as having scientific interest rather than any real practical value.

(I desire to give credit for much of the above matter to anesthetics by Hewitt and "Anesthetics, Ancient and Modern," Borroughs Welcome & Co., from both of which I have quoted freely.)

Pellagra Contracted from Domestic Animals.*

By DR. J. B. RUSHING, Benson, La.

Pellagra is a disease that is rarely contagious, probably due to a micro-organism, or pathogenic germ, producing symptoms synonymous to a certain disease of dogs, commonly called "sore mouth." This article is to call attention to a comparison of symptoms in this malady, which affects man very similarly to the dog, and to the probability that this infection is by some mode communicated. It is not transmitted while the animal is suffering from an acute attack, but appears to be contracted at some subsequent period, from infection which contaminates the premises, just as would a consumptive infect premises by expectorations.

The disease begins with bowel symptoms, diarrhea, skin eruptions and an eczematous condition of the hands, later on becoming pustular, resembling the spreading of erysipelas, a pruritic rash, over the entire body. This may be termed a primary or initial stage, and may cover a period of several weeks, or even months.

As the disease progresses, other symptoms become prominent; excessive salivation; the patient continuously expectorates a ropy mucous; violent sore throat; tongue reddened, to nearly the point of bleeding; anorexia and prostration pronounced. This may constitute a second or intermediate stage, which may cover a period of from two to ten weeks.

A violent rigor, or rigors, with a rise of temperature, marks the beginning of the final or third stage. Emaciation is well established, mental symptoms develop, delirium and delusions now make their appearance; the patient becomes greatly prostrated, with increasing severity of other symptoms, pronounced loss of appetite, expectoration of large quantities of ropy mucus and red stained mucus from the bowels, delirium,

* Read before the De Soto Parish Medical Society, December 10, 1909.

alternating with stupor, the patient finally falling into a profound stupor, dying in this condition.

The disease in question runs a much more acute course in the dog than in the human. We observe that the dog begins with bowel symptoms, diarrhea, which may last for several days; he has a mange and sores over his body, equivalent to the skin eruption in a person; salivation; slobbering a ropy mucus is an exceedingly prominent symptom in the dog; he cannot spit as would a person; therefore it runs from his mouth. His mouth and throat become very sore, and as this is the most commonly observed by the laity, the disease is usually spoken of as "sore mouth." The dog has no appetite, refuses to eat, and when in the final stage exhibits mental symptoms; does not know his master; will not take notice of scarcely anything; while in a delirious condition is often shot, as he is thought to have gone mad. This disease in the dog is very fatal and without remedy. In this section of the country, from inquiries which I have made, it appears to have been known only for the past few years. Many old men tell me that they do not remember of any such disease among dogs until recent years.

The reason which we have to offer that pellagra is probably due to the same pathogenic micro-organism is that the patient which I am now treating had no other chance to contract the disease; he has never eaten corn or corn-meal; seldom eats corn-bread. The patient, in the early spring of this year, took up the notion he had consumption, and would sleep in a tent, on his premises. I am told he would not sleep on a cot in his tent, but would spread an oilcloth on the ground and place his bed on the oilcloth.

There have been several dogs affected by this disease on his place, and it became useless to try and keep a dog on the premises, as each and every one would soon develop the disease, "sore mouth," and die. The idea comes to my mind that the patient referred to contracted the disease because he slept on the ground of an infected place. This appears to be the only opportunity which the patient had to contract any such disease; secondly, the symptoms of the disease commonly called "sore mouth," which is highly contagious among dogs and other domestic animals, appear to be very similar to the symptoms of pellagra, as I would understand them.

In conclusion, we offer two reasons as a basis of investigation. First, that the patient contracted the disease as stated because he was exposed to this infection, which was on his premises; secondly, because the symptoms of the two diseases are so very similar.

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DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. E. D. FRIEDRICHS, of New Orleans, read a paper entitled:

Extirpation of Varicose Veins; Report of Cases.

The subject of Varicose Veins from a surgical stand-point, is of far more importance than one would believe, judging from the amount of attention it has received in New Orleans in the past.

Going over the records at the Charity Hospital, I find recorded only 49 cases of varicose veins operated upon from May 8, 1905, to date. Knowing the common occurrence of this affliction, we must certainly have been very derelict in our duty toward this particular class of sufferers. Just because this disease does not necessarily prove fatal, could hardly be an excuse for permitting the patients so afflicted to remain invalids for the balance of their mortal existence. The use of bandages or elastic stockings give comfort and temporary relief from many of the annoying symptoms, which, however, is only temporary; for such palliative treatment is seldom, if ever, rewarded by a cure, whereas on the other hand if surgically treated, the vast multitude of wage-earners incapacitated by varicose veins if seen in the early stages of this disease can be offered a cure in the majority of cases and an improvement in all. We all know that operations for varicose veins are no new creation, that they were performed long before the age of Lister; having been practically abandoned on account of the disastrous results of infection, being revived again after antiseptic surgery became established. In these days of asepsis, we have very little, if any, dread of infection, and with the improved technique in operations upon

varicose veins, we do away with the extensive, unsightly, and perhaps painful scar of the older operations .

I will only touch lightly upon the Etiology and Pathology of the subject under consideration. When the patient comes to the surgeon, as a general rule, the varix is well advanced and is accompanied by either a bluish discoloration of the skin of the leg, eczema, ulcer, or edema, due to the imperfect nutrition of the tissues drained by the varicose veins. The causes of the varicose veins are dependent in same way upon an obstruction to the onward flow of the blood in the veins. Examples of venous obstruction are, wearing of constricting clothing, as circular garters, tumors of the pelvis, pregnancy. Gravity plays an important part, for varix is most commonly seen in tall persons, or in people whose occupations compel them to stand for long periods of time, as (cooks, washerwomen, motormen, etc.) Diseases of the heart and blood vessels may also be mentioned as causes. Bennett believes there is always a congenital defect and other conditions are secondary causes. It is a disease of youth and middle age. The superficial veins receive very little support from their surrounding tissue; if the valves become defective from any cause, these veins soon dilate and tend to varicosity, owing to their anatomical arrangement. As you are aware the veins of the lower extremities are subdivided into two sets, superficial and deep, the superficial being between the two layers of the superficial fascia, the deep veins accompanying the arteries. The internal or long Saphenous commences at the venous arch on the dorsum of the foot, ascending on the inner side of the leg, passing back behind the inner condyle, then follows the course of the Sartorius muscle, terminating about an inch and one-half below Poupart's ligament, after passing through the fascia lata into the femoral vein; the internal Saphenous has from 2 to 6 valves. The external or short Saphenous commences from the outer side of the venous arch on the dorsum of the foot, ascends on the posterior aspect of the leg, terminates in the popliteal after penetrating the deep fascia in the lower part of the popliteal space. Has from 4 to 6 valves. The Popliteal vein ascends through the popliteal space to the tendon's aperture in the adductor magnus, where it becomes the femoral vein. The femoral vein ascends through the upper third of the thigh, terminating beneath the crural arch, where the external iliac vein com-

mences, has 4 to 6 valves. The external iliac unites with the internal iliac to form the common iliac, having 1 or 2 valves. The common iliac of both sides unite to form the inferior Vena Cava, which has no valves. If from any cause the valves become incompetent, the superficial veins of the leg dilate and elongate in their effort to hold up the long column of blood without the aid of the valves; producing the condition which Trendelenburg terms a "Vicious Circle;" namely, "that the high central pressure in varix causes the valves in the Saphenous to become incompetent, that the veins of the leg being unable to sustain such a long column of blood, distend and the blood begins to flow in the wrong direction in the Saphenous." Therefore, to overcome this condition it is essential in every case of varicose veins of the lower extremities to extirpate the internal saphenous, in order to transfer the venous circulation from the superficial to the deep veins. In properly selected cases extirpation of the internal Saphenous alone is sufficient to produce a cure. However, in the majority of cases, extirpation of the internal Saphenous must be aided by some other procedure best suited to each individual case. Before performing any operation that has for its object the transference of the superficial to the deep venous circulation, we must first, definitely establish the fact that there is neither thrombosis or any obstacle of a marked degree in the deep venous circulation of the lower extremity. Mayo, in doubtful cases, suggests the use of an elastic stocking or bandage from the toes to the knee, to be worn for a week. If this relieves the symptoms and gives comfort to the patient the deep veins are assumed to be sufficiently patent and operation advised. Trendelenburg, to determine whether a case be a suitable one for his operation, places the patient in a recumbent posture, and elevates the leg, to empty it of its blood. After three minutes of elevation, he applies a moist gauze bandage above the lower third of the thigh, not tight enough, however, to shut off the deeper vessels, then makes the patient stand up. If blood flows into the Saphenous above the constriction, the valves are incompetent in the Saphenous, and the operation should be performed.

Among the operations for varicose veins, we may mention the Trendelenburg, Medelung, Schede, Ferguson, Phelps, Mayo, Babcock and Keller.

The Trendelenburg operation consists in exposing the internal

saphenous vein through about a four inch incision at the junction of the middle and lower third of the thigh, all visible branches ligated, and saphenous at both ends of incision is ligated, the section of vein between ligatures is removed.

Medelung operation cuts down over the varices, and ligates at various points. This operation is seldom performed now on account of extensive scar and chances of infection.

Schede makes a circular cut complete around the leg at the junction of the upper and middle third, incision reaching down to deep fascia. All bleeding points are ligated and wound sutured. Though rarely, gangrene may follow the Schede operation, more common sequels are edema of the leg and either anesthesia or hyperesthesia, below the scar because of section of the subcutaneous nerves.

Ferguson ties the saphenous vein near the femoral and removes a section of it, and makes a semilunar incision to the deep fascia around the varices. The flap is dissected up, the vessels tied, and flap sutured in place.

Phelps makes multiple incisions along the long axis of the internal saphenous, incisions two inches long, vein ligated at both ends of incision and sections of vein removed.

The Mayo operation consists in the extirpation of internal saphenous vein by means of an enucleator (an instrument with a ring at one end through which the vein is threaded.) In the upper third of the thigh the internal saphenous is divided between artery forceps, the proximal end of the vein ligated, the distal end passed through the ring of the enucleator and again grasped with a hemostat. Moderate traction is then made upon the vein and by pushing the enucleator in the direction of the knee the vein is extirpated subcutaneously; when 6 or 8 inches have been freed, a short incision is made down on the ring of the enucleator, the vein grasped and instrument withdrawn. The freed vein is rethreaded into the ring and other lengths are extirpated in a similar manner, until the vein is removed from 4 to 6 inches below the knee. If, during manipulation, the main trunk breaks, pressure is applied over the rupture, incision is made lower down over the vein, the vessel divided between hemostats and extirpated from below upwards to point of rupture.

The Babcock operation has a special extractor, a long double ended bougie-a boule. The operation is very much the same as

the Keller operation with the exception that, instead of inverting the vein when traction is made upon the bougie, the venous branches are pulled loose from the main trunk and causes the walls of the vein to be massed or pleated in a small compress just below the upper bulb's expansion of the instrument. The extractor is pulled from the lower incision with a mass of vein packed against the upper bulb of the instrument.

The Keller operation:—The internal saphenous is exposed by a short incision near the femoral opening of the fascia lata, dissected free for about one inch and ligated as high up as possible. In a similar manner the lower end of the vein is exposed. The vein is now cut below the proximal end, and above the distal end, leaving the section of the vein free for removal. The upper end of the section of vein to be removed is slit on its interior wall for three quarters of an inch, a strong ligature is now tied to the slit end of the vein, care being taken not to include more tissue in the ligature than will pass through the lumen of the vessel. A wire loop or probe is then passed through the lumen of the vessel from the lower opening and the ligature is threaded through the loop or eye of the probe; the probe is withdrawn and the ligature brought out at the point where the probe entered. Gentle traction is now made upon the ligature, the edges of the vein being inverted into its own lumen by an assistant. Traction is continued until the vein is completely extirpated by being turned inside out and withdrawn from its sheath. A slight puckering is sometimes seen midway between incisions, when removing the internal saphenous, indicating that the posterior branch of the vessel has been reached which can be ligated and incised through a small incision; traction is again employed and remainder of the vein removed.

V. T. age 36, colored female, occupation, cook. Varicose vein of the left leg, following typhoid fever. Small painful ulcer above inner malleolus. Operated upon February 2, 1909, by Dr. E. D. Friedrichs, general anesthesia. Discharged cured.

Mr. P. G., white male, occupation, laborer. Varicose veins of right leg, ulcer. Operated upon under general anesthesia April 6, 1909, Dr. Friedrichs. Discharged cured.

Mr. A. N., aged 38. White. Occupation, laborer. Varicose veins of right leg, ulcer above inner malleolus. Operated upon under general anesthesia, April 12, 1909, Dr. Friedrichs. Has

developed carbuncle on back of neck and is still in the Hospital. Ulcer and vein cured.

Mr. F. S., age 31. White male, occupation, laborer. Varicose veins of both legs; ulcer of the right leg. Operated upon under general anesthesia Jan. 27, 1909. Right leg operated upon by Dr. Wm. Perkins and left leg operated upon by Dr. Friedrichs. Discharged cured.

The following cases were operated upon by Dr. Wm. Perkins, who was kind enough to permit me to include them in this report:

D. M., aged 63, white male, occupation laborer. Varicose veins of left leg, with ulcer. Operated upon March 24, 1909 under local anesthesia. Discharged cured.

Mrs. J. B., age 30, white female, occupation, cook. Varicose veins of left leg. Large amount of subcutaneous fat, discoloration over middle third of leg which appeared about to ulcerate.

Miss K. B., age, —, white female, occupation, cook. Ulcer lower part of leg, distinct varicose internal saphenous and branches, vague history of phlebitis following meningitis, ulcer remained after removal of lipoma of calf of leg, besides the operation upon veins, the ulcer was grafted.

The cases reported were all operated upon by the Keller method, with slight modifications. In addition to the extirpation of the internal saphenous, all veins that can be seen or palpated between the knee and ankle are ligated, and small sections of vein removed by a series of short incisions. Instead of making an incision over the femoral opening to expose the internal saphenous vein, an incision about two inches long is made over the internal saphenous, about the middle third of the leg. The vein exposed and dissected up about an inch, all visible branches ligated and incised. The distal end of the main trunk ligated, and the proximal end caught with a hemostat and vein divided between the hemostat and ligature. Then a copper wire loop, made in the shape of a long hair pin, is inserted into the vein and pushed up through the lumen of the vein until it reaches the femoral opening of the fascia lata; a short incision is made down upon the loop; the vein is freed, and ligated at the upper end of the incision, the loop pushed out through an opening made in the vein. The loop is then threaded with a piece of strong silk about four feet long, and is withdrawn, carrying the silk out through the vein in the wound below the knee, leaving

about one-half foot of silk protruding from the upper wound. The vein in the lower wound is now slit for about three quarters of an inch on its anterior wall, the piece of silk is firmly tied to the vein, and traction is made upon the silk; the vein is inverted into its lumen and removed from below upwards. The reasons for removing the vein from below upwards, are: That the lumen of the vein becomes larger as the vein ascends the limb; there is less obstruction afforded by the valves; the copper loop is not diverted from the main trunk into the branches, and the branches are torn away more easily. When puckering, as described by Keller, is seen along the internal saphenous, while being removed, a short incision can be made down to the vein at the point of puckering, and the branch or branches causing it, may be ligated and divided.

As the vessel is removed pressure is made over the course of the internal saphenous to control hemorrhage. The wounds are sutured and dressings applied. In cases where an ulcer is a complication to the varix, the ulcer is swabbed with carbolic acid and acid neutralized with alcohol or swabbed with tincture of iodine and excised. The ulcer is dressed separately to avoid infection from that source. The limb is immobilized and the patient kept in bed for at least ten days. The advantages of the operation are:

1. It does not cause an extensive scar.
2. Very little chance for infection.
3. Offers a cure in the majority of cases.
4. Can be performed under local anesthesia.
5. Practically no mortality.

DISCUSSION OF PAPER OF DR. FRIEDRICH'S.

Dr. A. Jacoby, of New Orleans. Up to two years ago I was in favor of operation in these cases, but since that time I have not been so favorably impressed with the results obtained in these cases. In the clinic I have seen several recurrences following operation. It is a very easy matter to say to the patient that you will operate and cure him, but you cannot do so in all cases. Many patients will ask you, "Can you positively assure me that I am going to be well afterwards?" I have never been able to assure them of a cure, because I have seen several cases recur. Now, it is a well known fact that sometimes the condition exists in the deeper veins,

as well as the superficial, and you are operating on the superficial veins to cure a probable deeper condition. You also have very fat people to handle, and you very frequently have suppuration and a good deal of trouble following operation. The results of the treatment of varicose ulcers at the clinic at the hospital have been very satisfactory with bandages and other treatment. I have had quite a number of cases where rest in bed and a proper fitting elastic stocking would bring about a cure. An important point is that a stocking cannot be worn from year to year without being changed. J. B. Murphy has suggested a leather boot, and in his hands it has proved very satisfactory. He is using this leather boot instead of operation. I must say again that the results in the clinic have been so favorable from the use of the stocking that I have not been willing to suggest that the patients who come to the clinic with these varicose ulcers and varicose veins should be operated upon.

DR. W. M. PERKINS, of New Orleans: There has been a good deal of argument pro and con about the advisability of operating at all. It is perfectly true that varicose veins are sometimes a general condition, and that no operation on any external set of veins is going to cure the varicosity of the deeper veins. But the muscles restrain the deeper veins. It is also true that varicose ulcers yield readily to almost any sensible treatment. If the ulcers return, the same ulcer yields to treatment next year, and so on the rest of the patient's life. And it is merely a question of whether the patient cares to be treated and cured every year or two, instead of submitting to a fairly reasonable operation with decided hope of permanent cure. It is pretty well accepted that no varicose condition accompanied by crural ulcer is ever safe. True, you cannot guarantee a patient that you are going to cure him by removing the veins, but neither can you "guarantee" that Epsom salts will move his bowels. Dr. Friedrichs did not offer to "guarantee" anything. The method he discussed is merely recommended as the best of the operations aimed at varicosity in any way dependent upon diseased internal saphenous veins.

DR. FRIEDRICHS in closing: In regard to the cases that Dr. Jacoby speaks of returning, the recurrence may have been due to the fact that the operative procedure was not sufficiently radical. We generally err in that particular. The idea is that we should not only remove the internal saphenous, but also cut all the branch-

es and tie them all off and remove segments of those veins below the knee. The reports are showing now that they are curing the great majority of them. Of course the fact of the matter is that in the first cases, and especially with the Trendelenberg operation, we know we did not get the results that we expected. In regard to the deep veins, and I think I mentioned that in the paper, the idea was that we do not operate on the case if there is any obstruction to the deep venous circulation. If the deep venous circulation is irreparably damaged, there is no necessity for repairing the superficial venous circulation.

DR. HERMANN B. GESSNER read a paper entitled

Ilio-Femoral Aneurism, Treated by Endoaneurismorrhaphy (Matas).

The operation of endoaneurismorrhaphy, a suture of the afferent and efferent vessels of an aneurism from within the sac, introduced to the profession by Dr. Rudolph Matas in 1904, does not appear to have been taken up with sufficient interest by general practitioners, or indeed, by surgeons excepting those in a few centers. The need of popularizing an operation simple in its technique, conservative in its conception and execution and far-reaching in its beneficent results must be my excuse for presenting the report of a single case.

Peter S., colored male, 53 years old, swamper by occupation, was admitted to the Charity Hospital on Feb. 22nd, suffering with an ilio-femoral aneurism on the right side. His family history was negative in its bearing. His previous history included the diseases of childhood, a right pleurisy some twenty years since, and spells of chills and fever. More important was the history of hard work in the swamp, of chancre ten years previous and of years of addiction to alcohol and tobacco, showing the fruits of the trilogy, syphilis, alcohol and labor in producing lesions of the arterial system. The account of his present illness dates back less than three months, when a swelling was detected just below Poupart's ligament on the right side. This increased in size quite rapidly, the increase accompanied by the development of edema of the extremity, as well as by pain. When seen, the patient presented

an aneurism along the ilio-femoral line passing about half an inch under the ligament and extending five and a half inches below it, measuring three inches transversely. There was marked edema of the entire extremity, which measured from two and a half to five and a half inches more than the other at corresponding levels.

Examination of the urine showed specific gravity from 1009 to 1015, leucocytes and albumen varying from a trace to 2%. On February 27, under ether anesthesia, operation was undertaken, with the assistance and co-operation of Dr. Matas. The abdomen was opened along the right rectus border, the posterior layer of peritoneum incised, and the right common iliac compressed about one inch below the bifurcation with a Heffner clamp, the blades of which were dressed with rubber tubes. The aneurismal sac was incised in the long axis, and a few laminated clots turned out. In spite of the application of the clamp to the common iliac, the purpose of which was to eliminate collateral bleeding from the internal iliac there was a steady flow of blood from the sac cavity. On the theory that the blood came from the left internal iliac into the right, and thence by collateral communication with the external iliac and femoral into the sac, the aorta itself was manually compressed, this important and trying service being rendered by Dr. Matas, to whom acknowledgment is hereby made. Under this control the bleeding stopped, and the two openings into the sac were closed with chromic gut-sutures No. 1 in Lembert technique. The sac itself was closed by bringing its walls together with a right-angled (Cushing) suture of the same material.

The abdominal wound was closed in tiers after the nick in the posterior peritoneum had been duly sutured. Total time consumed, about one hour. Recovery was uneventful, except for slight infection of both wounds. The patient was still being kept in bed, with slight secretion from the sac, when, on March 27, just four weeks after the operation, he was taken with a violent chill and a temperature of 104.2°. This was followed by other septic manifestations of like character, the temperature rising to 105.8° on one occasion. Repeated examinations failed to reveal the site of the infection. The blood showed no plasmodia but an increase in the neutrophiles to 89%. A considerable diminution in the amount of urine voided led to an examination which showed prostate normal to the touch per rectum, meatus contracted to pinhead size by the cicatrix of an old venereal ulcer. After meatotomy catheteri-

zation was easily accomplished, no prostatic obstruction being in evidence. The quantity of urine was readily increased by forced ingestion of fluids. The septic state, however, continued until death occurred on April 11, forty-three days after operation.

Post-mortem examination showed the right limb intact, without any sign of necrosis or gangrene; the peritoneum had healed well over the iliac; the kidneys evidenced chronic parenchymatous changes; the liver was large; so was the spleen; the bladder walls were much thickened—the source of the infection was finally found in the prostate, which presented multilocular abscess.

COMMENT.—Death was plainly connected in no manner whatever with the operation for aneurism. This case, like others reported, shows the great advantage of minimum sacrifice of vessel length, minimum interference with collateral circulation, minimum disturbance of surrounding tissues. There was no hemorrhage no gangrene no recurrence, though the latter of course, was not to be expected in the short period elapsing between the operation and the patient's death.

DR. L. SEXTON read (by title) a paper entitled

Observations on Tubercular Hip-Joint Disease.

Tubercular hip-joint disease is a very common affliction among poorly-housed and badly-nourished children of our cities. This trouble has been prevalent for many years under names of white swelling, morbus coxarius, coxitis, and hip-joint disease.

Tuberculous disease of the hip-joint has been confounded with other inflammations of the joint and bones, such as osteomyelitis, rheumatism, gout, and arthritis deformans, but is easily differentiated by the tuberculin and other tests.

Mode of Infection.—Tubercular hip disease may have its starting point from any injury, or it may come on spontaneously, but in either event infection with the bacillus of tuberculosis is always present.

It is supposed to gain entrance into the joint through the lymphatics from drinking tuberculous cows' milk, and experiments prove that the bacillus may also be admitted through the blood current. That there are other sources of infection, as tuberculous food, is very probable.

Tuberculous hip-joint disease has a predilection for strumous children, but at the same time we often find robust and healthy children beginning to limp without traumatism or rheumatism, finally developing all the symptoms of the tuberculous hip.

The disease may assume the form of osteo-arthritis or synovitis.

If it happens to be in the knee joint where it is superficial and easily examined, you can make out the distinction between the two much more easily than when the hip joint with its large covering of muscles is involved.

Prognosis.—Billroth said many years ago that 27 per cent of tuberculous hip joint cases died within sixteen years under the old plan of management. Konig says that 16 per cent out of 117 cases operated on for joint tuberculosis died within four years after the operation. He found that 60 per cent of these cases have secondary lesions and that 56 per cent of the cases dying of Potts' disease, had tubercular deposits in other organs of the body. Under present management results have been very much better.

Symptoms.—Symptoms of tuberculous hip pain are often referred to knee joint, deformity, perishing of the muscles of the thigh, anterior lumbar curvature, upward tendency of the pelvis on the diseased side, and adduction with shortening as the disease progresses.

The limb of the affected side is usually flexed and may be abducted or adducted in varying degrees. When the patient is lying down on flat table the spine is arched anteriorly. In each case the loss of range of motion of the hip on the affected side is one of the first symptoms noticed.

Flexion of the leg is a common diagnostic symptom of tubercular hip disease. Muscular wasting from non-use causes the buttocks to flatten and perish. Atrophy of limb on account of hip joint disease comes from growth cessation and non-use. Shortening of the limb may be produced both by cessation of growth and by absorption of the acetabulum and pathological dislocation of the hip joint backwards and upwards.

The cancellous ends of bones are the ones most often attacked by the tubercle bacilli. The epiphysis, the medullary canal or shaft just under the periosteum may be the beginning point of any tuberculous joint. The tubercular process may form an abscess in the neck or body of the bone, in fact, the disease may involve any

portion of the joint, the synovial membrane and ligaments may also become eroded and pulpy.

The acetabulum is likewise affected by being increased in size and depth. The irritation of the diseased process brings about a tonic contraction of the muscles, keeping the limb in a flexed position, usually inversion or eversion, as the case may be.

Owing to the fact that the knee is supplied by the anterior crural, sciatic, and obturator nerves, the pain is as often located in the knee joint as it is in the hip, hence, all knee joint pains cause us to think of hip joint disease at once.

At first the thigh seems to be wasting. the leg may apparently be lengthened. The pelvis is tilted upward on the affected side, there is often spinal lordosis (anterior lumbar curvature) with lateral curvature higher up, the convexity being towards the diseased side.

Early rigidity of the hip joint is noted, any attempt to flex the limb on the abdomen raises the pelvis from the examining table.

Nature effects its cure in hip joint disease by fixation, adduction and flexion. From this fact it is natural to infer that if the joint is put absolutely at rest without this flexion and adduction it ought in the nature of things to get well without this adduction or deformity.

When Dr. Lorenz was in this country the object of treatment in his cases was to get the joint well even with ankylosis which could be later brought into at least partial use.

Now, following the teachings of this great specialist, it would seem advisable to fix the joint just as soon as possible after the discovery of the disease.

There are many appliances for fixation, traction and protection accomplished by different methods.

Any apparatus intended for the cure of hip joint disease has to be designed with two objects in view, namely, the prevention of adduction and flexion of the diseased limb. This mechanical proposition is met in some cases by applying long zinc oxide adhesive straps to the limb (it previously having been shaved), from the middle portion of the thigh down around the heel returned on the opposite side of the thigh to the point of beginning. A small block with hole in it for rope to pass through is placed just under the heel wide enough to prevent these adhesive straps from pulling together so as to cramp the ankle.

If the mattress is hard the adduction can be partially overcome by placing under the limb a wide piece of plank upon which is placed on the inner side of the limb a long sand bag extended from the perineum to the ankle. This adduction can also be obtained to a certain extent by the application of the Z. O. plaster in such a way as to make the traction greater on the inner side of the limb, having the patient's body so placed on the bed that when this traction is made it will then evert the limb.

Now the matter of fixation of joint surfaces may be obtained by a plaster cast which extends from the foot on the diseased side up to the ensiform cartilage, making a stiff dressing, with the hip joint entirely surrounded in one continuous splint. This affords ample protection and fixation. As a matter of course any apparatus of this kind should be supplemented with crutches when the patient tries to walk.

The Z. O. plaster extension apparatus can be applied to the limb before this plaster cast is put on so that the weights and extension can be used as soon as the patient retires.

To recapitulate: The plaster of Paris band meets the indication for fixation, the Z. O. straps traction and the elevation of the shoe sole on the opposite foot and crutches meet the ambulatory indication for treatment.

There is difference of opinion as to whether a moderate amount of motion in tuberculous hip joint is not better than absolute fixation.

In a rather limited experience it would seem to us that the less movement of two diseased surfaces together the better for the part involved.

Some criticism has been made to the plaster of Paris cast that it kept the limb so still it encouraged disuse thereby increasing the atrophy of the part, granting this to be the truth, which certainly is not always the case, it would perhaps not take a treatment of over six months to relieve or greatly ameliorate the condition. Now, whatever is lost in growth in this short period of time can be readily overcome by massage, gradual Swedish movements, vibratory and other expedients for developing muscular activity. This muscular atrophy dwindles into insignificance compared to the tubercular processes which is the main desideratum for correction. Traction when applied to a sound limb increases its length very materially and when applied to a diseased limb, not only pre-

vents shortening, but keeps the two diseased surfaces pulled apart.

Under the above outlined plan we have had three cases brought to a successful termination with a moderate degree of motion in two and ankylosis in one.

There is nothing original to be claimed from the plan outlined here, unless, perhaps, it is the method of roller and extension that makes the upright to which the pullies are attached applicable to almost any bed which can be held in place by a couple of ordinary one-inch screws. The fixation of the hip is obtained by the plaster of Paris; the out-of-door method of treatment is obtained by a couch or roller chair on the gallery (weather permitting); the extension by weights or pulleys can be utilized half or all the time as the case may require.

Up to 1875 the long Liston splint used in fractures was depended upon. Since that time fixation forms for the body and some form of extension have taken the place of the Liston splint.

It is with this treatment by extension and counter-extension that this paper has to deal. I have often found it impossible to adopt the Levis apparatus to the bed used by the majority of families as all cases cannot be treated at the institution with the metal beds and attachments. I have devised the upright piece of steel which is shown here, and which can be screwed to any bed with foot board, by running the extension rope under one pulley and over two, any weight can be attached and suspended free of friction with the bed.

The foot of the sound side can be depended upon for the counter-extension or keeping the weight from pulling the patient too far down in bed. It may be necessary at times to pass a wide band padded over the perineum and to attach it to the head of the bed.

The amount of weights to be used depends upon the tension of the muscles to be overcome. The weights should be gradually increased until the shortening is reduced. Under this treatment the curvature of the spine corrects itself about as soon as the deformity of the limb.

This weight is worn all night and a greater part of the day, but the patient is usually allowed to move around into the open air and to move about in rolling chair while keeping the hip as still as possible.

This is often done by a spica bandage around the hip.

There is very often a curvature of the spine or tubercular process in the vertebral column in these cases of tubercular hip trouble.

It is just as important to extend or pull these diseased vertebræ apart as it is to extend or to fix the hip joint.

This weight and pulley though applied to the leg primarily is just efficient in extending and resting the spinal column.

Recurrence.—Again, after the hip joint seems perfectly well there may be a metastasis in which tuberculous process may set up in some other organ of the body.

Because tuberculosis in the hip joint may be arrested and all evidence of the disease except ankylosis and atrophy seems to disappear, it is important to keep up the forced feeding, fresh air and rest for at least six months after the last symptom of the disease has disappeared.

As a matter of course forced feeding and the best hygienic surroundings are just as essential in the treatment of joint tuberculosis as it would be in that affecting the lungs.

DR. MARION SOUCHON, New Orleans, read a paper entitled

Indications for Exploratory Laparotomy.

The scope of this paper is restricted to exploratory laparotomy for suspected gastric carcinoma and for obscure conditions suggesting the presence of some pathological process interfering with the mechanical function of the stomach in subjects past the age of forty.

If we look at the study of Kroënlein of two hundred cases of carcinoma of the stomach, we see that the average time from the onset of symptoms up to the day of operation is about nine months, that gastro-enterostomy prolongs life about three months, and gastrectomy fourteen months. Miculitz averages the life of unoperated carcinoma at about one year, and when you consider the mortality *even* in such hands as Carle and Fantino, Mayo Robson and the Mayos, interference is still a questionable point. So, then, if gastrectomy is to have its legitimate place in surgery we have to go in advance of present operative indications and laboratory findings which are being so much imposed upon.

We are all familiar with the significance of the absence of free

HCL, of the presence of lactic acid, of the Boas-Oppler bacillus, and of Muller's test for occult blood; but unfortunately when such a chain of facts is found, the clinical evidences are also just as pathognomonic. I would want to defer to those doing special work in this line and to commend their advancement. but the interpretation of their findings often brings us back to our starting point—that there is something wrong, but what is it? I would wish to be clearly understood that we do not expect the laboratory to make a diagnosis for us, and therefore would aim these remarks at those whose province it is to interpret and give the proper value to gastric examinations. The presence of lactic acid and of the Oppler-Boas bacillus means fermentation due to delayed emptying of the stomach and when due to motor insufficiency should yield to treatment. Right here, I am brought to a point that I would wish to bring out—the abuse of the stomach tube. Of all symptoms that guide us in the diagnosis of malignancy at the pylorus is the block and gastric distress relieved by vomiting. The use of the tube as in a case in mind relieves the discomfort and gives unfortunate relief, for the pathological process all the while rapidly progresses.

Mr. S. came to Hotel Dieu on April 3 with a diagnosis of chronic gastritis, made after several examinations. Age 45. History of indigestion for four months, during which time he used a tube every other day. He had no pain, no tenderness and no palpable tumor. Gastric findings after Ewald's test-meal showed no free HCL. Lactic acid and occult blood present. Second examination showed free HCL, no lactic acid, but the Boas-Oppler bacillus was found. Operation, April 15, revealed a malignant tumor at the pylorus about the size of a lemon, and for which only a paliating gastro-jejunostomy could be done. Here is a case where a pylorectomy should have been done many months before, had it not been for the masking of the condition. This man, up to the age of 45, had enjoyed perfect health, his first medical experience dating with this trouble. To me, that is about as strong an argument and as suspicious a sign as we can have.

The subject would lead us too far were we to take up all the causes that give gastric block, and I must limit myself only to two other common factors. I refer to peripyloric adhesion and to that due to traction. I have two cases which I will cite as illustrations. Mr. B., about 40, a healthy, robust mechanic, had for a period of

two months been treated for stomach distress whose predominant symptom was occasional vomiting. The gastric examinations were negative, save for the presence of lactic acid. At a period of his disease, he became acutely ill—violent pains—with enlargement of the liver accompanied with high and persistent temperature. When brought to the Hotel Dieu a diagnosis of abscess of the liver had been made. Exploration with syringe, at time of operation, brought forth a quantity of thick viscid mucous. Operation incision over gall bladder showed a Hydrops of the gall bladder caused by the blocking up of the common duct by four billiary calculi, which were removed. The presence of organized adhesions at the pylorus were met and loosened and the subsequent perfect recovery of the patient leads me to the conclusion that this had been his trouble all along. This patient, up to the crisis of the disease, evidently did not suffer from the presence of gall stones, for there were no billiary attacks, but of the adhesions resulting therefrom.

Mrs. K. (aged 39), with gastric irritability, was examined in December, with negative results. In February she underwent another examination by a competent medical man and referred to a gynecologist. She returned home no wiser, as no conclusion could be arrived at. Shortly after her return home there became apparent a movable tumor in the superior abdominal zone, which, under observation, was enlarging rapidly. When brought to me by Dr. Boring, a tentative diagnosis of *Tabes Mesenterica* was made, and exploratory laparotomy was agreed upon. Operation revealed a carcinoma of the Transverse Colon, for which an end to end anastomosis was made, the gastro-colic omentum was so infiltrated as to bind down and restrict the mobility of the stomach to such an extent that it became her main cause of complaint.

Now, gentlemen, this even limited experience that I have had so impressed me that to wait for Macdonald's indications for laparotomy is almost equivalent to waiting till you feel a mass at the pylorus.

I would not wish to be understood that every one with a belly-ache should be laparotomized, but the position I take is this: A subject past the meridian of life, up to that time healthy, developing and suffering of unrelieved gastric distress is a fit subject for exploration.

In closing, I beg leave to apply a criticism to my own paper,

which I once heard: It contains little that is good and little that is new—the good is not new—and the new is not good.

DISCUSSION OF PAPERS ON EXPLORATORY LAPAROTOMY.

DR. I. I. LEMANN: Dr. Souchon has answered his own objection. The very first case he relates carries its own answer, in that the diagnosis was evident from the history. If one does not use a little common sense in the interpretation of an examination, one cannot expect to make a diagnosis. I think that history is significant. To the internist a history of that kind, occurring in a man past the meridian of life, made the diagnosis positive before you had opened the abdomen. I do not think that Dr. Souchon's experience speaks against careful study and examination of the stomach, but rather speaks for it. I believe it speaks for careful study on the part of the internist before the surgeon should go into the abdomen. That is the way I interpret it.

DR. J. A. DANNA: I think Dr. Souchon's paper is perhaps of more interest to the Society generally than it is to surgeons. It is of interest to the Society because it throws upon the general practitioner the responsibility for the fact that nine out of ten, or perhaps more, of the cases of gastric carcinoma that we operate on we do not get until a tumor is palpable in the epigastrium. And when the tumor has grown to such an extent that you can feel it in the abdominal wall in more than nine cases out of ten the condition is inoperable. You cannot cure your patient by removing that tumor, and the best you can do is what Dr. Souchon did in the first case, that is, a gastro-enterostomy, and give your patient three or four months of life. So, I say, the burden rests on the shoulders of the general practitioner. Just as soon as the general practitioner has a man past the middle age who has gastric symptoms that do not get well with the ordinary treatment he should refer that patient to the surgeon for exploratory laparotomy and not wait until the patient seeks another physician or surgeon, or until he can feel a tumor which makes him suspect that there is a cancer of the stomach.

DR. SOUCHON (in closing): Dr. Lemann says that the first case I mentioned answers itself; that the diagnosis would have struck us in the face. I think he misunderstood me, or that I did not bring out the point I intended to. Sure it did. Nothing was

more typical than the examination. But Dr. Lemann did not go far enough. The diagnosis should have been made and the man operated on four months earlier. Instead of that he was given a stomach tube. And by whom? By those who have been making gastric examinations. When he reached us it was clearly a case of carcinoma, and we went through the routine examination only as a matter of record. Had we not been in position to make the examinations it was an absolute certainty that the patient had a gastric carcinoma.

DR. WM. M. PERKINS demonstrated some uses of the surgical bone engine; and also gave demonstration of an Adjustable Hodgen's Splint.

DISCUSSION OF PAPER ON ADJUSTABLE HODGEN'S SPLINT.

DR. M. J. MAGRUDER: Dr. Perkins said the first operation of this kind was by Dr. Friedrichs, Sr. I think Dr. Andrew Friedrichs was the first one who did this operation, because it was done at the Touro Infirmary on a depressed fracture of the skull, and I happened to be there and assisted in the operation. Dr. Andrew Friedrichs operated, using an ordinary old-style dental engine. He drilled through the skull, probably making as many as two hundred holes through the skull, removing a piece probably two and a half or three inches in diameter. I think the credit of that operation is due Dr. Andrew Friedrichs.

DR. A. J. PERKINS: This demonstration has been very interesting, but we must take into consideration that everybody, particularly those of us who practice in the country or the small towns, cannot use an apparatus like that. There are more chisels and mallets in the country and more need for them than there is for this apparatus. That is an excellent thing in hospital work in the city where they have the electric power, but the great majority of the physicians over the State haven't that power. I think in operations on the skull it is far better than the trephine. It certainly is a very handy instrument and very efficacious, and you can do very prompt work, but the difficulty with it is that the motive power, electric or otherwise, could not be obtained. Consequently, we must not think of discarding the chisel and mallet altogether.

DR. A. G. FRIEDRICHS: I think the contention which Dr. Perkins raised is all out of joint because with any dental engine with

a burr the same thing can be done. Of course, you can't do it as rapidly as with a high power engine, but it certainly can be done. Now, at the Touro Infirmary, not only in the case that Dr. Magruder called attention to, but in other cases we have removed these bony developments or parts of bone in other parts of the body. For instance, in one case there was a kind of tuberosity on the tibia, that was giving trouble, and we simply cut it down with the ordinary dental engine. Any ordinary engine of that kind, with a ordinary drill, has sufficient power, though, of course, if you go at it like Dr. Perkins did no machine would stand it.

DR. J. A. DANNA: Dr. Perkins' remarks have brought to my recollection one or two instances in which the chisel has come in very handily. Dr. Perkins said that in lower jaw surgery we should not use a chisel. I recently had occasion to remove a lower jaw, and by counter pressure on the lower border of the jaw with a large chisel, and the use of a sharp chisel from above I was able to split that bone in two with very little trouble and without shock to the patient.

Now, in regard to those motors. I have had occasion recently to use the motor in cranial surgery where you want to remove a large flap and where you want to make a continuous cut of some length. There is a burr or drill which cuts on the side and which has a guard going beyond the end of the instrument which feeds along the bone, after you have once made a trephine opening or an opening with a burr, and which separates your dura as you go along, and you can with this instrument make a cut of an indefinite length in any direction you please. In a case only two or three days ago in which I used this instrument, my instrument broke. It broke after I had gotten well started and had already made a two-inch incision downward, in a case in which I was going to explore the brain to determine the cause of convulsions. Now, I had to finish that operation some way. I tried my DeVilbis, but it was not strong enough to cut through. The only other thing I could do was to use a chisel. And here is the point: If you have a good, sharp chisel and you put the skull on a good, hard table, you can chisel with very little danger and with very little shock to the patient. I was able to finish my flap, to continue the incision, and to complete the flap with a good sharp chisel. So that, for the benefit of our country surgeons who, as I say, do not necessarily have to have a big armamentarium to do that

kind of brain surgery. If they have got a good sharp chisel and a good mallet, that is all they need. And they can get those at any ordinary store.

DR. R. MATAS: I believe that from the point of view of the general surgeon, a simpler way of accomplishing the desired end in these cases is by the use of the Gigli saw. The only difficulty about this instrument in the past was that it could not be adapted to the surface of the dura without injuring this membrane, but since the introduction of the little instrument devised by Martel (Paris) this objection has been removed. The Gigli saw is cheap and accomplishes all that any machine can accomplish. Martel's guide carries the Gigli saw through the perforations previously made in the skull with a trephine or a drill and burr, with perfect safety and permits the saw to make a section of any desired length in the skull.

It greatly simplifies the operation of craniectomy and permits of the performance of even so extensive an operation as hemi-craniectomy without any notable shock. The great objection to the chisel, in addition to the other defects, is the jarring, caused by the blows of the hammer, which favors shock. I have used the Cryer spiral saw with a hand motor and other appliances, but have discarded all the apparatus that I formerly used for the Gigli and Martel combination.

With two Gigli saws, which cost about fifty cents apiece, and a Martel attachment, which costs about \$1.25, we can accomplish anything that is expected of the more complicated and expensive bone cutting machines. The only additional expense is a conical half-inch trephine, which is attached to a carpenter's brace, to make the initial perforations.

DR. A. G. FRIEDRICH: Did you ever use a circular saw attached to a dental engine?

DR. MATAS: Yes, I have tried to use it. I have a whole box full of circular saws. They are especially hard to use in making curves. They will cut straight lines well enough, but they will not go around curves.

DR. PERKINS (In closing): I would like to say that I actually use the Gigli saw, and am also familiar with the use of the hammer and chisel. I do not mean to say for an instant that I do not use the chisel. Dr. Danna is mistaken in so quoting me. I do not use this instrument I have shown for everything, nor do

I use the Hodgkin's Splint for all fractures. But sometimes I have no Gigli, and there are occasions when this particular form of engine is very valuable. There are few towns in Louisiana that have no electric service. You do not do extensive bone surgery, if any, in the house of the patient. You, as a rule, try to take such cases where you have everything within reach. We all know you can cut a jaw with a chisel. I have done it. But there are cases where this instrument is very valuable, where it saves shock and loss of time. It does require a certain amount of practice, because if you should touch a sponge with the burr you would do damage. But if you are dissecting the glands from the internal jugular vein you must not cut the vein. If you profess to do fairly good bone surgery you are supposed to use dangerous instruments without injury. The engine shown here is not the only apparatus. There must be from seven to nine varieties of surgical drills now in use. It requires some temerity for a man to introduce a new instrument or terms here, as he is immediately supposed to be in favor of using it as a cure-all. I suppose, of course, we are all acquainted with the ordinary well-known instruments and methods. I merely wished to call attention to a valuable addition to our surgical armamentarium, which is of great value in some of those tedious and difficult lone cases which put even practiced surgeons to the test. Please remember that I did not dwell upon the use of the engine in cranial surgery, as that subject has been so extensively covered in recent literature. The idea of protecting the dura by a guard while doing osteoplastic skull work with the Gigli is by no means new. We used the devices of Loewenstein & Pozzi about eight years ago.

DR. P. E. ARCHINARD, of New Orleans, read a paper entitled:

Some Remarks on Epilepsy.

I accepted with gratitude the appointment of the Chairman to preside over this important section of our association. Nobody feels more than I do the importance of this specialty in medical practice. And though the subject itself is imbued with a great deal of technical and dogmatical facts I have believed that the best service we could do our Society and its members would be to bring

before all its members some important and common nervous diseases, and study them as the ordinary practitioner does, and see how best they can be handled by any physician, whether he be a neurologist or not.

I have taken for my subject epilepsy and its treatment. I will not fatigue you with any discussions as to the nature, causes, location of this disease, but I want to remind you that it is a frequent disease, one which is considered as hopeless in a number of instances, and one of the bans of medical practice. True it is that for a well-confirmed case which has lasted some little time nothing can be done, as very well say the practitioner and specialist, but the fact remains, in my opinion, that a great number of times these confirmed cases would not exist if properly handled in the beginning. To this proper handling which lies more in your power than in the specialist's, I want to direct your attention.

The early diagnosis of epilepsy is the main anchor of the successful treatment of the disease, and that diagnosis rests on a suspicion that all spasmodic affections be they general or partial, tonic or clonic, accompanied at some stage of its duration with the least loss of consciousness is or may become epilepsy and we must treat it accordingly. This treatment we find in the judicious employment of the Bromides, and best of all the Bromide of Potassium, as will be outlined later.

I mean by this, that any child or young person or adult who gives a history of repeated muscular spasms or convulsions with loss of consciousness, be this ever so fleeting, should be considered as a subject in whom epilepsy is likely to develop. And in those cases the judicious administration of Bromide of Potassium twice a day, morning and night, will prevent in a very large number of them the repetition of these nervous symptoms. How long this treatment should be continued and how much Bromide of Potassium should be given in a case will be dependent on the severity of the attacks and their number and on the age of the patient. The use of Bromide in moderation can be continued indefinitely and is much less hurtful to mental and other developments than the attacks it is given to prevent. The bromide of potassium is the most available form of bromide, it is innocuous and cheaper than any of the others. A proper attention to the patient's digestion and secretions will prevent in most instances the acne and other inconveniences generally attributed to it.

In a large practice, extending over a good many years, and including an unusually large number of epileptics, I have followed the rule of giving this class of patients referred to above, Bromides for months, and in some instances for years, and I have felt at all times gratified at the results. I have never met in all cases in which the Bromide of Potassium was of service any untoward effects.

A number of cases classed as epilepsy and qualified as Jacksonian Epilepsy should be considered separately from the above. No matter how these cases are treated with Bromide, they improve but do not get well, because in them there is a local cause inducing the irritation that brings on the attack, and when possible that irritation should be removed, and, if necessary, by operative interferences in the cranium. In the same manner the spasms and convulsions which reflex irritation caused by abnormal conditions of distant parts, such as adherent prepuce and clitoris, can often be relieved by the proper treatment of the parts.

To return to Jacksonian Epilepsy, this term must be limited to those cases which begin with partial spasms and convulsions or sensory irritation in a limited part of the body and always the same parts, and in which those symptoms remain so limited, and only later become more generalized and at last affect consciousness itself. In those cases, whenever the parts irritated can be reached by surgical procedure this should be resorted to, even when no local evidence can be found on the scalp, and in a number of cases even, when nothing was apparently found to be corrected by surgical means, the mere removal of the pressure of the skull on the brain has been of benefit.

After these operations it is always beneficial to use the Bromide for a while, as in genuine epilepsy, for the purpose of diminishing the irritation of the cortical cells.

These, gentlemen, are the summing up of my experience in this important class of cases. I am sorry that the time limit imposed by our regulations does not permit me to relate a number of cases in support and corroboration of my views on this subject. But what I want chiefly to do, is to urge on each and all of you the greater use of Bromide, administered for a long time in cases of repeated convulsions and spasms of children and young people. And by so doing I am sure you will see a great decrease of epilepsy in our midst in the future.

DISCUSSION OF PAPER OF DR. ARCHINARD.

DR. ALLEN EUSTIS: I have taken particular interest in this paper, inasmuch as I have had three cases under my observation in the past two years, but I was disappointed that Dr. Archinard did not go more into the cause of a great many of these cases. Last year, before the State Society, if you will remember, I reported two cases of what I called then epileptiform attacks, during my paper on intestinal parasites. One case was a little girl, twelve years old, who had been having these epileptiform attacks. She had been taken to New York and had adenoids removed, and one of our leading pediatricists sent her back with the prediction that she would probably have these attacks the rest of her life. And, if you remember, I reported in that little girl's case where I found lumbricoid worms, first a few eggs on examination of the feces, and with evacuation of her lumbricoids and careful hygienic attention to prevent reinfection, she had not had a second attack. That was three months afterwards. To-day she has not had another attack. In the other case, that of a boy, if you remember, I said I found the worm known as the *Tinea Nana*, a small tape worm about half an inch long, which inhabits usually the intestinal canal of the mouse. I did not at the time lay any stress on the synchronous presence of the parasites and these epileptiform convulsions. However, with the disappearance of the parasite from the intestinal canal the attacks diminished. The parasite is much more difficult to get rid of than the lumbricoid. I overlooked his condition somewhat, and he had a slight attack about three months ago. He had just simply a slight twitching and then a loss of consciousness for a period of about ten minutes. I examined the feces again and found it loaded with this worm. There must have been millions of them. I then instituted treatment again, and he has had no further attacks. After looking up the literature of this parasite I wish to call attention to it, because I believe it is much more common in our midst than we ordinarily believe. Stiles in Washington found it present in eighteen cases in 1902, and in the literature we find that in most of the cases in which the *tinea nana* is present there are epileptiform attacks. I simply wish to call your attention to the fact that the presence of intestinal parasites is a causative factor, and that in all cases of epilepsy a careful examination of the stools

for possible parasites should not be neglected. If such is done many a poor unfortunate will not have to take any bromide or any other drug beyond a suitable vermifuge.

DR. ROY M. VAN WART: Dr. Archinard's paper is very interesting. The pathology of epilepsy is not at the present time well understood. It is important to take into consideration every possible factor in the cause of attacks of this kind. In the most recent work, that of Turner of London, it is estimated that seven years is the minimum time required to cure the disease. With bromides, he estimates that 10 per cent of the cases of true epilepsy, if treatment is begun early, can be cured, and that even seven years, in some cases, is not sufficiently long. Often they may be free from attacks for long periods of time and have them return. I know of one case that was free from attacks for sixteen years, another for seven, and another for three, and the attacks returned. This bears out very well the researches of Dr. John Turner of London, who considers that epilepsy is an organic brain disease. He has demonstrated the presence of microscopic lesions in many instances. These researches have since been confirmed by several other observers. He uses the bromides with a salt-free diet. This was introduced in France by Richet and Toulouse, with good results. They give a salt-free diet, and then substitute for the salt of the food, sodium bromide. By this method, the effects may be produced by much smaller doses. The effect of the bromide is obtained just as if it were given in the ordinary way after meals. I have used this with good results, but it must be insisted that the time must be longer than one or two years. It should cover a long period of time and should be continued long after the attacks have ceased.

DR. CLARENCE PIERSON: I wish to make a few remarks in connection with the insane epileptic, a fact not yet mentioned. The epileptic comes to the general practitioner, and the ultimate care of and responsibility for that patient is on him. The only benefits we know of have been from the bromides and the diet. We have at present in our institution eighty-eight epileptics. I have made a careful tabulation of this series of epileptics in order to be able to confirm the very statement which Dr. Archinard has made. We have had 88 under treatment; that is, about 7.4 per cent of our entire population. Of this number the average age is 34 years and 7 months. The average age of onset was 19 years

and 10 months, as best procurable from the statistics gotten from the physicians themselves who primarily treated the cases. The average time in the institution has been five years and six months, showing you the short time. Now in there we have sustained the number of twenty-seven deaths. The average age of the white males has been 29 years; the average age of the colored males has been 35 years; the average age of white females has been 37 years; of colored females 25 years. This will show you that the only way in the world that we are able to extend life and sustain the individual has been with the bromides and the diet. We have a number of cases who, if they come to one meal, they are just sure to have an epileptic seizure, and we know before the seizure comes on that the seizure is coming on, because the irritability of the patient anticipates the attack. I mention this in confirmation of the statement Dr. Archinard made as to the great importance of the bromides.

DR. J. C. VIDRINE: In reference to the paper of Dr. Archinard as to the value of Bromide of Potassium in cases of epilepsy caused from different sources of irritation of the nervous system; here I wish to recall a very interesting case which occurred in my practice. Some time since I was called to see a lady, a primipara, who had been confined and delivered by a midwife several days previous, and think that the history of this case has revealed itself into a very interesting one. She gave symptoms of some varieties of epilepsy previous to this, and from time to time. I made an examination and found some particle of placenta, tenderness over the uterus, and with convulsion. I removed everything and irrigated the uterus, and vaginal douches were continued, the position of the uterus was investigated thoroughly. I did not pay very much attention to the epileptic symptom, but gave her usual expectant treatment for puerperal septicemia notwithstanding. After due time, and careful handling, some of her condition was benefited, while these convulsions continued. I then begun thinking about the threats she has had at different intervals, something like epilepsy, and that did look very much like it. Everything else had been cared for and treated accordingly, but some of her condition remains as before. I therefore came to the same conclusion that this case had developed into a true case of epilepsy from different causes. I then prescribed bromid of potassium. I gave her in

the beginning twenty (20) grain doses and as the symptoms subsided, that is the convulsion was controlled to safe point, I diminished the size of the dose by giving ten (10) grains, and later on I alternated from 10 to 5 and 5 to 10 grains to dose. After the convulsions had been stopped she took this prescription for about two or three months, and after she stopped taking it she stayed seven months without having another attack, at which time I prescribed the same, for a few more times, and the last I heard of her she has not had any more convulsions. I think and feel sure that the Bromide of Potash is what did the work. I believe that oftentimes we would get good results from it, but we do not use it.

DR. LIONEL L. CAZENAVETTE, of New Orleans, read a paper entitled:

Some Remarks on Anterior Poliomyelitis (Infantile Paralysis).

In selecting a subject from the field of neurology to be presented before this body, it is necessary that the subject be one that would be of interest to the majority, and that it be presented not from the standpoint of the specialist, but particularly from that of the general practitioner.

The subject of anterior poliomyelitis has been chosen because it fulfills the former of these requisites, and I shall keep the latter in mind during its presentation.

By the term infantile paralysis (acute anterior poliomyelitis) is meant a disease appearing commonly in children, marked by a fever of rapid onset accompanied by more or less gastro-intestinal disturbances and a rapid loss of power in one or more limbs. The paralysis subsides in great part, leaving often some parts to undergo complete paralysis with atrophy, and permanent disability. As the term indicates, it is the result of a rapidly developing inflammation, more or less extensive, of the gray matter of the spinal cord, affecting its anterior horn.

When we consider that a large proportion of those affected with this disease remain crippled for the remainder of their lives, it is certainly our duty as physicians to give it serious attention.

The disease may present itself in the form of an epidemic and

there have been recorded in the literature over 46 epidemics. That occurring in New York and its vicinity during the summer of 1907 gave a new impetus towards the study of the disease. Another epidemic was reported in the city of Salem, Va., and its vicinity in the summer of 1908.

During the past decade the Nervous Out-clinics of the Charity Hospital have scarcely been without a case of paralysis resulting from this disease. But in the summer of 1908 we met with a larger number there being at times more than twenty such cases receiving treatment. When we remember that, on the one hand, some cases of this disease improve rapidly from slight paralysis and therefore never come to the clinic, and, on the other, that those cases that we did see were severely affected the number actually seen (over twenty) represent but a small proportion of those affected with this disease during that period of time. I can, therefore, state that this part of the country has also been visited with this disease in its epidemic form.

ETIOLOGY: This disease occurs chiefly during the warm weather months in both its epidemic and sporadic forms. Of 915 cases reported by different observers 82 cases occurred in winter and spring and 833 cases occurred in summer and autumn.

As its name implies, it affects infants and children. But during a severe epidemic even adults may be victims of the disease. The most vulnerable age is from one to three years.

It often follows in the wake of infectious diseases, but there is no doubt, however, that the disease in the great majority of cases occurs spontaneously and presents the character of a non-contagious infectious disease.

It affects children at the time of dentition, when they are more prone to gastro-intestinal diseases. It is now the opinion of those who have studied the etiology of this disease from a bacteriological standpoint, and otherwise, that it is due to a toxemia entering the system through the gastro-intestinal tract.

No explanation has yet been given why the anterior gray horn cells should alone be affected by this toxin, but theoretically it has been explained that at the age when most succumb to the disease, the whole nervous system is in a state of development and that these cells fall victims to these toxic substances because they have not yet reached their full power of resistance to external influences. Starr's conclusion on this subject is that, "while the clinical

history of the disease implies an infection, it must be admitted that up to the present time the organism responsible for the disease has not yet been discovered and that it is still a matter of uncertainty whether the causative agent is a micrococcus or is a toxin. The weight of evidence is, however, in favor of the latter hypothesis."

PATHOLOGY: Although this disease counts among its number many afflicted ones the percentage of death is comparatively small and therefore the opportunities afforded for the study of its pathology have been comparatively limited.

However, we find in the literature some data on this point. Some investigators (Hasbitz and Sheel) have held autopsies and made careful investigation of seventeen cases with the result that "the changes found were in the nervous system only, and consisted in a diffuse, infiltrating, inflammatory process closely related to the blood vessels and chiefly in the gray matter, and within this chiefly in the anterior gray horns. Generally the inflammation extended along the whole length of the cord, and, as a rule, was most intense in the cervical and lumber enlargements. The inflammation often had a hemorrhagic character, even to the extent that small hemorrhagic cavities were formed especially in the anterior gray horn."

In fatal cases this process involves the centers in the medulla, but in non-fatal cases, at the end of some time, a focus or several foci showing evidences of inflammation are found in the anterior gray. The nerve cells of the affected region are found to be in all stages of degeneration. The motor nerve fibres of the diseased anterior horn cells then secondarily degenerate, and the nerve fibres disappear peripherally from the anterior roots to the paralyzed muscles.

SYMPTOMATOLOGY: The prodromal symptoms of the disease differ in no wise from that of other infectious diseases. Some times, malaise and anorexia make their appearance for a few hours, but more often the child retires well at night and before morning is suffering with gastro-intestinal symptoms, such as vomiting, diarrhea or, at times, constipation. Then the little patient becomes restless and even delirious, fever sets in, and within a few hours there is noticed the characteristic flaccid paralysis involving at the onset usually more than one limb.

The diagnosis of this disease presents no difficulty. With the

prodromal symptoms, as above described, and the paralyzed limb or limbs presenting marked atrophy and flaccidity, the muscles offering no resistance to the touch, diminished temperature of the paralyzed limb, with at times a cyanosed or mottled appearance, abolished reflex movements without impairment of sensation, bladder or rectal functions, we have a complete picture of the disease. A further confirmatory evidence of the disease is the loss of Faradic contractility in the affected muscles and a change in the normal reaction to the galvanic current.

PROGNOSIS: Altogether too gloomy a prognosis is generally given in poliomyelitis. This is based upon the fact that some palsy always remains, but the actual residue of palsy may be so slight that one should be careful not to depress the hopes of parents and patient. The more widely distributed the paralysis, and the more pronounced the same, the larger the remaining palsy is apt to be. Those parts showing improvement within a few weeks after onset will recover before long. The paralyzed muscles showing no changes in the electrical reaction will recover completely. Those showing only a partial reaction have some hopeful chance, but those muscles after some months that show no sign of improvement will remain permanently paralyzed.

Before entering into the all important subject of the treatment of these cases I wish to briefly summarize a report of 21 cases under observation in the out-clinic of the Charity Hospital. Thanks to Dr. P. E. Archinard and Dr. T. Lanaux.

Of these 21 cases, 6 took sick during cold weather months and 15 during warm weather months.

The ages at time of onset of the disease varied from seven months to two years and eleven months.

There were 13 males and 8 females.

The febrile reaction was marked in most cases, varying in duration from 12 hours to 8 days.

Although the gastro-intestinal symptoms were the usual ones, with diarrhea and constipation seemed most prevalent; the former appearing in 10 of the cases and the later in 8 cases; 3 cases showed neither one nor the other.

The psycho-motor or meningeal symptoms, that is, those symptoms indicating a marked irritation of the nervous system as twitching, restlessness, insomnia, rigidity and retraction appeared in a large number of the cases.

The extent of the initial paralysis varied widely, not only in its severity, but in its distribution. Only one extremity was involved in two cases; both arms were affected in one case; both legs were affected in ten cases; one arm and one leg, in one case; both arms and both legs, in six cases; one arm and both legs, in one case. Other regions affected with paralysis were the neck in four cases, back in six cases and the abdomen in one case.

TREATMENT: The treatment of the acute stage should consist of rest in bed and antipyretic measures. Counter irritation along the spine is also indicated. Of course, the bromides are also to be used in restless cases. During this stage instruction should be given to the parents or guardian to keep the affected limbs as much as possible in a position near the normal. In other words, prevent any undue strain on the already weak and atrophying muscles. This can readily be done by the use of sandbags placed along the limbs, while the child reclines.

After the acute stage our attention should be directed towards the proper use of electricity.

This agent affords us a means of obtaining certain points of prognostic importance and it is urgent that its action should be well understood.

All paralysis the result of lower neurone disease will give us a loss of muscular irritability or contraction when stimulated with the Faradic current. Therefore, in these cases of poliomyelitis, where the cells of the lower neurone are affected, we have always a loss of muscular contraction to that particular current. This fact alone will corroborate our diagnosis, but does not help us in the prognosis. Here we have to depend on the Galvanic current, which is a constant or continuous form of current. This property allows it to enter more deeply than can the Faradic current, and thereby to cause contraction of the muscle.

Now, normal muscles and nerves respond in a particular manner and in a definite order when they are made to contract by means of the galvanic current. The resulting contractions are quick twitches on the interruptions of the current.

Their normal order follows: With the active pole over the muscle or nerve the first contraction noticeable as we gradually increase the flow of current is with the make of the negative pole. By increasing the current gradually we not only get a contraction with the make of the negative, but also a contraction with the

make of the positive pole. A little more current will give us these two contractions and also a contraction with the brake of the positive. And by still increasing the current we get in their order of strength.

1st. Contraction to Make of Negative.

2nd. A contraction to Make of Positive.

3rd. A contraction to Brake of Positive, and

Lastly, a contraction to Brake of Negative.

Now, whenever the nerve supplying the muscle has been injured or diseased, then the nerve degenerates and the muscle substance also becomes altered and degenerates. When this is the case the application of the continuous current no longer produces the quick twitch as in the normal muscle, but a new type of contraction is seen—a sluggish contraction slowly developed and slow to relax. In addition there appears an alteration in the relative strength of the contractions at the negative and positive poles.

The C. C. C. may equal the A. C. C. and in very severe cases where there is complete degeneration of the nerve cells and fibres we may have the A. C. C. greater than the C. C. C., and we then have what comprises the complete Reaction of Degeneration.

Now, between the normal response and the complete R. D. we may have various degrees of changes and upon these changes should depend the prognosis in the case. This can be done as early as 8 and 10 days after the onset of the disease.

In making a prognosis in the 21 cases this has been our guide: Whenever it was found that the paralyzed muscles gave a change in quantity and not in quality when the current was applied, a favorable prognosis was given and we have had the additional pleasure of proving the correctness of our belief when these little afflicted ones began after a short time to use these muscles. But whenever it was found that the complete R. D. was present no further hopes were entertained for improvement, although the electrical treatment was kept up.

The amount of current used was just what was necessary to cause muscular contraction. This averaged between 15 and 40 ma. It was used in the labite form of application averaging ten minutes in duration and twice weekly.

We have by this means kept these paralyzed muscles in a good condition until such time as the more deeply damaged tissues repaired.

The use of massage is certainly not to be disdained.

The internal use of strychnin in mild doses should be kept up for months.

The application of splints for the correction of deformities should, in my opinion, if used at all, be done under certain precautions. To confine a partially paralyzed muscle in a splint or a brace is, in my opinion, condemning it to utter atrophy. Among those 21 cases three of them had braces used a month or so after the beginning of the disease. All three were affected in the lower extremities and, to-day, I am afraid, will never be able to stand.

RESULT OF CASES.

Of two cases with one extremity affected two recovered completely.

Of one case with both arms affected one recovered completely.

Of ten cases with both legs affected, three recovered completely, six recovered in one leg only, one showed no improvement.

Of one case with one arm and one leg affected no improvement.

Of six cases with all four extremities affected, one recovered completely, three recovered completely in upper extremities but showed no improvement in lower extremities; two recovered completely in three extremities but have one lower extremity showing no improvement.

Of one case with one arm and both legs affected, no improvement.

Of the 21 cases treated therefore, seven recovered completely and fourteen are still with some paralysis.

DISCUSSION OF PAPER OF DR. CAZENAVETTE.

DR. PAUL A. McILHENNY: Dr. Cazenavette in his closing remarks said that he believed a corrective apparatus or brace did more harm than good in these cases in that it prevented normal contraction or functioning of the muscles. I regret to say that I cannot agree with the doctor on that point, for the simple reason that since we have paralysis of the muscles in such cases, principally the quadriceps extensor and the dorsal flexors of the feet, the muscles that have not been affected are naturally going to contract after the third stage of the malady has passed. Unless we take some measures to prevent those muscles from contracting,

such as the daily use of massage and stretching, we are finally going to have contractions of the tendo-Achilles, of the flexors of the leg, and these contractions will demand tenotomies later on; therefore I strongly recommend that some light apparatus be made for these children as soon as there is any danger of contractions taking place. In this way we will prevent the contraction of the unaffected muscles, and by so doing prevent the extreme stretching of those muscles that are paralyzed and also of those that are only partially paralyzed. Unless such measures are taken the muscles that are only partially paralyzed being on the stretch have no chance whatsoever to develop or regenerate, for the simple reason that not being subject to voluntary motion they undergo an atrophy from non-use, and later on this atrophy becomes so extensive that we may be led to believe that an actual paralysis exists, proceed to do tenotomies of the contracted muscles, and tendon transplantations in order to remedy this apparent paralysis which is not a true paralysis at all, but simply a paralysis from non-use. Therefore, in such cases, it is much better to prevent contractions by the daily use of massage and stretching, or by some light orthopedic apparatus than to condemn the child to a legacy of contraction deformities. If the child is to wear a brace, massage should be done daily so as to obtain as much exercise in an artificial way as would be gotten if the brace were not worn. If we do not use braces or massage and stretching to prevent these contractions we are going to have a deformity due to non-use of these muscles, and later on, when tendon transplantations have been done to remedy the pseudo-paralysis, those muscles supposedly paralyzed will regenerate, and in consequence the part will be thrown out of balance or, in other words, we will have too many muscles functioning on one side and too few on the other. In my opinion, tendon transplantations should never be done till one year has elapsed after the initial attack, and during that time special attention should be paid to the development of these muscles that we may have an transplant, and to the prevention of contractions at any point.

DR. CAZENAVETTE (I closing): I would like to emphasize the use of electricity in the treatment of these cases, particularly during the first year after the beginning of the trouble. I think that most of us do not use it for a sufficient length of time. We give it up too soon.

DR. ROY M. VAN WART, of New Orleans, read a paper entitled:

Modern Conceptions of Hysteria.

The indefiniteness with which the terms Hysteria, Neurasthenia, Psychasthenia, Psycho-Neurosis, Traumatic Neurosis, and various others used to denote allied conditions, have been employed by medical writers, and particularly by the profession at large, has made it desirable to attempt to delineate these conditions where possible. While numerous definitions of these conditions have been attempted, we find, on the one hand, a group of neurologists who designate them all as psycho-neuroses and who do not attempt to still further classify them, claiming that, for therapeutic purposes, it is not necessary to more than recognize that a psycho-neurosis exists. On the other hand, we find other writers who deem it desirable to limit these terms as far as possible to certain groups, and to recognize the transition stages and to admit that the large proportion of cases at the present time cannot be satisfactorily classified under any one heading. Attempts to define hysteria have been made with more or less success by many writers. Here, again, we find two extreme views, hysteria being described, as in the work of Binswanger, as a disease which may simulate practically every medical condition and which may cause almost any symptom; or limited, as by Babinski, to certain well-marked conditions. His attacks on the old conception of hysteria as a disease characterized by two sets of symptoms, the stigmata and the accidents—the former more or less permanent and some of them constantly to be found in individuals suffering from the disease, and the latter, the accidents, conditions which are transient and likely to occur at any time—have been the means of calling attention to the whole subject. Babinski, in defining hysteria, after pointing out that it is not the only disturbance capable of being provoked by psychic causes, or the only trouble which may be manifested in different forms in the same subject, or yet the only trouble which may be accompanied by grave disturbances of the general nutrition or of the mental state, considered that the characteristic of all hysterical symptoms was that they could be reproduced in certain individuals by suggestion and could be made to disappear under the sole influence of persuasion. His views met with opposition in so many quarters that, at the suggestion of

Marie, it was made the subject of discussion at two meetings of the Parish Neurological Society. At these meetings, the subject was discussed under a number of headings which had previously been decided on. Without entering into a discussion of the various views expressed, it may be stated that there was general assent to the question: Among the phenomena attributed to hysteria, is there a special group of troubles that can be exactly reproduced by suggestion and made to disappear under the influence of suggestion alone or of persuasion? The question: "Is it legitimate and necessary to give these troubles a name; and, if so, shall the term 'pithiatism' be adopted?" was deferred for a future occasion. The third question involved the contention of Babinski that the hysterical stigmata, hemianæsthesia, contracted visual fields, monocular polyopia, dyschromatopsia, the abolition of the pharyngeal reflexes, hysterogenous zones, etc., were the result of unconscious suggestion very frequently of medical origin. To this question, a number assented, but others contended that these could arise from auto-suggestion without the necessary intervention of the physician. In this connection, it may be stated that the writer has never seen these symptoms except on one occasion, in patients, who had not previously been under medical care. This is particularly true of the anæsthesias. Babinski's methods of examination are important in this connection, and he has repeatedly insisted that great care must be exercised in not suggesting anything new to the patient. There are certain symptoms, however, which may be regarded as hysterical, such as atrophy of the muscles, occurring with a hysterical paralysis, which, while not in themselves hysterical, are produced as the result of the disease. Many factors enter into the explanation of the appearance of these symptoms, it being suggested that contraction of the visual fields might be due to exhaustion, and that circulatory symptoms might be the result of simulation. The fourth question was: "Has suggestion or persuasion any influence on the tendon or cutaneous reflexes, pupillary reflexes, circulatory or trophic functions, secretory functions, or temperature?" All agreed that suggestion had no influence on the tendon or pupillary reflexes. Some of those present contended that suggestion abolished the plantar, pharyngeal, and corneal reflexes, but others disagreed. Hallion, in his researches, with the plethysmograph on hysterical subjects, found certain vaso-motor reflexes, which are lost in organic anæsthesia, persisted

in hysterical anæsthesia. No one claimed to have produced vasomotor or secretory disturbances by suggestion, though two of those present claimed to have seen cases of hysterical fever. Bono, after seven months search in the Paris hospitals, was unable to find a single case of hysteria presenting vasomotor or trophic disturbances. The fifth question was: "Admitting that suggestion or persuasion had no action on the phenomena mentioned in the fourth question, is there no connection between them and the phenomena mentioned in the first question; and, if so, is it casuality, interdependence, association, or simply coincidence?" There was much difference of opinion, some holding that such phenomena had been observed in hysteria and were disposed to regard them as manifestations of the disease, while others questioned the accuracy of the observations or else the thoroughness of the attempts to eliminate as far as possible all other co-existing diseases. To the question: "Do there exist morbid states outside of what is called hysteria, in which disturbances are observed presenting the characteristics indicated in the first question which can be exactly reproduced by suggestion and which can be made to disappear under the influence of suggestion alone or of persuasion. Dejerine objected to this on the ground that it would include a large number of conditions which could not in any sense be considered hysterical, and asked for a definition of suggestion. The discussion which followed developed the fact that there was a wide variation of opinion as to the conditions which could be relieved by suggestion or persuasion; that many allied conditions which were undoubtedly not to be classified as hysteria could be relieved by the sole influence of persuasion and that even certain hysterical states require long treatment for their relief. Dejerine insisted that there were a number of persons who could be made ill by suggestion and cured by persuasion, and could not be regarded as hysterical and cited the large proportion of gastric conditions developed under a nervous strain which had been suggested to be real stomach disturbances by the physician and continued as such until some physician discovered that there was no gastric trouble and persuaded them of this. These he considered neurasthenic and not hysterical. Babinski, in supporting his position, stated that neurasthenia could not be affected by persuasion. There seemed to be a marked difference of opinion, and the conclusion of the majority was that hysteria could not be clearly defined, from the present

data, but that the grouping of Babinski included only a part of hysteria. The question: "What are the respective roles of emotion and suggestion in the genesis of these troubles, was not discussed. The concensus of opinion seemed to be that we should not substitute Babinski's "Pithiatism" for the larger term "hysteria." This discussion was included in this paper to indicate that, at the present time, hysteria is not a well-defined condition and that it is important that it should be limited as far as possible to those cases presenting the peculiar mental state in which occur a number of physical symptoms more or less permanent, though not necessarily, which have been termed in the past the stigmata and others which occasionally occur and were formerly termed accidents. The psychical condition is manifested by exaggeration of the emotional state and sensory recepticity; the physical by excessive reaction to any stimulus showing itself by exaggeration or suppression of motility, sensation, secretion, circulation, and other organic functions. The practitioner, in approaching cases of this kind, should diligently examine the patient from a purely internal medical standpoint and should, failing to find any evidence of organic disease, supplement this by the neurological and psychiatric examinations. It is only in the absence of definite evidence of organic disease of some part of the body that a diagnosis of hysteria should in any sense be considered, and then great care should be taken not to confound patients suffering from morbid fear, impulsive ideas, compulsive ideas, the crises that are apt to occur in these states and emotional disturbances with true hysterical conditions. Great care should be taken to eliminate the possibility of simulation, and it should be remembered that hysterical subjects may present organic symptoms, such as gangrene, skin lesions, joint lesions, which have been produced in the attempt to attract the attention of the physician, and that simulation may be a part of the hysterical state and not simply a simulated disease. The term "hysterical" is so loosely applied that great care should be taken in its use, and that patients possibly suffering from other conditions requiring different methods of treatment or possibly organic disease, should not, in this manner, be lightly passed over. The larger one's experience becomes in dealing with these cases, the grater care one exercises in the diagnosis of this disease, as it is so often associated with other condition, the relief of which does not in many instances, however, cure the hysteria.

Babinski has done a great deal in calling attention to the fact that great care must be exercised in the examination of these patients and that a physician should, if possible, so conduct his examination as to make no suggestion of disease to his patient. He still further brought out the fact that there is great divergence of opinion concerning hysteria and that we are in need of a more careful study of the whole subject and that we have as yet no absolute criterion as to what is and what is not hysteria. It is still further to be remembered in the treatment of these conditions that the sudden cures brought about by suggestion may not be permanent and that many cases can only be cured by systematic education and that others absolutely incurable. The psycho-analytic studies of Freud have done much to assist us in understanding the mental state of these patients, though his theories as to the sexual origin of all these conditions have not been accepted. Jung has also done much to show that the method of psycho-analysis can be successfully utilized. To the practitioner, this may seem disappointing; but, while at present we have not been able to accurately define hysteria, we know that a group of symptoms exists, to which the name may be applied, and that it is unfair to use the term loosely to cover any vague nervous disturbance. The careful investigation of every case will do much toward bringing about a clearer understanding of the whole subject.

DISCUSSION OF PAPER ON MODERN CONCEPTIONS OF HYSTERIA.

DR. S. H. MOODY: I enjoyed the paper very much. It is a very scientific paper. I think we are prone to err in our conception of hysteria. It is a neurosis, just as distinctly so as is epilepsy or migraine or neurasthenia or any of the other neuroses. The fact that it is a neurosis makes it questionable as to whether or not it should be considered curable by suggestion, and as to whether or not it may be would depend so much upon the degree of severity of the disease. In a severe case of hysteria I should think that it could be no more cured by suggestion than any other neurosis where the disease is of a severe type, for instance, epilepsy.

I think we are prone to make a mistake in the diagnosis of hysteria, as the doctor has suggested. I believe that the general practitioner can not see more than a very few cases during his lifetime of practice. The fact that his patient manifests a few

hysterical symptoms does not necessarily mean that she has hysteria. It is associated with personal characteristics known as hysterical stigmata, which should be present in all cases, along with other symptoms which become recognizable. Any neurotic individual, suffering from any disease, may present hysterical symptoms at times which are quite different from the symptoms of true hysteria.

DR. VAN WART (In closing): I simply wish to insist on the importance of not calling every nervous condition that comes to us hysteria. An attempt should be made to make a diagnosis of the actual nervous condition present. Remember that the term psycho-neurosis is a general one and that in the larger proportion of cases, a little care will enable you to accurately make out the condition present in any given case.

DR. JOHN SMYTH, of New Orleans, read a paper entitled:

Surgical Parotitis in the New-Born.

H. Y. S. Born November 21, 1908. White; male. Full term; well nourished. Tendency to cyanosis at times.

Mother, aged 18, doing well after a normal labor R. O. A. of about seven hours.

Mother had suppurative appendicitis when three months pregnant with this child. Second attack—Chill and pulse 120° when first seen by me on evening of third day, but no temperature. I operated fourth day. Considerable adhesion, appendix about four inches long infiltrated, constricted in its proximal one-third the distal two-thirds containing pus. Uneventful recovery. At time of birth of this child, she was in good health, breasts and nipples normal.

Father, age 20; well, but thin. No history of tubercle or venereal diseases.

When the patient was five days old, a swelling on the right side of the face, just in front of the ear, was first noticed—this gradually increased. The baby became fretful, but nursed well and without apparent difficulty.

Examination of the mouth negative, no obstruction or induration of Steno's duct could be detected, no evidence of stomatitis.

No teeth; throat apparently normal. No discharge from ear. Swelling caused some pressure on membranous portion of auditory canal anteriorly, but not marked. Child otherwise seemingly healthy, both testes in scrotum and apparently normal. Child nursed from mother's breast, nipples somewhat sensitive, but not sore. Child was allowed at times the rubber nipple as a pacifier. Sixth-day cord had dropped and place practically healed.

On December 2d, swelling had increased to about one inch long and three-fourths inch wide in region of right parotid, no redness, but evidence of some pain on pressure. Swelling did not affect movement of jaw. Temp. rect. $100 \frac{1}{5}$.

Incision was made over the most prominent part of swelling, and about $\frac{3}{8}$ ss of creamy thick pus was evacuated from upper portion of parotid. Gauze drain introduced. Phimosis with irritation of the prepuce necessitated circumcision on the tenth day.

December 6th.—Rect. temp. $99 \frac{1}{5}$, pulse 132, resp. 30, general condition apparently good, patient resting quietly, bowels and kidneys active.

December 7th.—When wounds were dressed, very little discharge was found from parotid. Temp. 99, pulse and resp. good. Tendency to cyanosis when crying.

December 9th.—Parotid wound healthy, circumcision wound healed.

December 10th, 3 a. m.—When I was called, to find constipation, distended abdomen and convulsions with marked cyanosis. Temp. rect. $97 \frac{4}{5}$, pulse 80, resp. irregular and at times imperceptible. Convulsions controlled in four hours by three enemas of chloral, 1 gr. each. Bowels moved by repeated doses of calomel in 10 hours, green stools with milk curds.

Next day, 8 a. m., free from convulsions, but temp. in rect. $103 \frac{1}{5}$, pulse 148, resp. 36. No evidence of chest trouble. Small hard red spot on inner side of the instep of the right foot was noticed. Wet dressing (normal salt sol.) applied. At 8 p. m., slight edema could be detected. Incision brought away only a few drops of pus much thinner than that obtained from region of parotid. Small gauze drain introduced, wet dressing reapplied.

December 12th.—Wounds appeared better.

December 13th, 11 a. m.—Temp. $99 \frac{2}{5}$, pulse and resp. good. Dressing not disturbed.

December 14th and 15th.—Wounds dressed and found to be healing rapidly; practically no discharge.

December 16th.—Temp. rose to $104\frac{4}{5}$ in a. m., and when the patient was seen at 1 p. m., the right lower extremity was swollen and indurated with a small area of fluctuation over the outer part of mid. $\frac{1}{3}$ of right leg and marked redness and induration over post and outer part of right thigh, together with enlargement of all of the glands of the right inguinal region and a small abscess behind right shoulder not involving axilla.

3 p. m., patient removed to hospital and parts incised freely. The fluctuation on the outer portion of thigh was found to be only a circumscribed accumulation of serum. The thigh showed general infiltration of serum, but no pus could be found. The largest inguinal gland was incised but showed no evidence of supuration.

The swelling at junction of post axillary fold with right arm contained about $\frac{1}{35}$ of creamy pus macroscopically identical with that obtained in the region of the parotid. This was sent to pathologist who reported staphylococci. The parotid wound almost healed, was reopened, and a small quantity of pus was found lower down. Small rubber tube drain was placed in the wound. All other wounds were drained with gauze and normal salt moist gauze applied. 6 p. m., temp. dropped to 99.4 in rectum, but went up at midnight to 104.4 rect., pulse varying 128 to 162.

December 17th.—Patient doing fairly well at noon, temp. 103, pulse 146, resp. 34, wounds dressed and looked much improved, redness disappeared and edema of right lower extremity, including induration of inguinal glands, very much reduced. Patient nursing well, resting well and apparently free from pain. 8 p. m., temp. $102\frac{4}{5}$, pulse 140, resp. 30.

December 18th.—Slept well, nursed well during the night. 6:15 a. m., sleeping quietly. A few minutes later nurse noticed marked cyanosis, with rapid and irregular respiration. 8 a. m., I found temp. 101, pulse 108, resp. 50, with bronchial breathing on lower half of right lung, with dullness most marked posteriorly. Considerable cyanosis, extremities cold.

Oxygen inhalation given. Warm mustard poultice to chest to redden well. Moist rales appeared in a short time over consolidated area. Difficulty in swallowing soon noted.

Oxygen given freely. 11:40 a. m., temp, $97\frac{4}{5}$, pulse 126. 4 p. m., temp. $97\frac{4}{5}$, pulse 140. 6:25 p. m., patient died in gasping respiration, with right lung showing practically complete consolidation (infarctus). Autopsy not secured owing to objection of family.

It is interesting to note that all inflammations in this case, including the lung complication, occurred on the right side. There was never any evidence of left side involvement, except the prepuce which was probably equally distributed as no difference was noted.

The child was from its birth easily cyanosed. To this it seemed less liable when lying on its back.

Lexer (Von Bergman System) says that "a sialoadenitis occurring in nurslings during the first weeks or months of life is mentioned by Hennig, Mikulicz and Kummel; strangely it affects only the submaxillary and sublingual glands and never the parotid." This child showed no evidence of any inflammatory conditions, and except occasional slight cyanosis, appeared perfectly well, up to the occurrence of the parotid trouble. I believe that this case is one of primary suppurative parotitis, and is reported on account of its extremity in early infancy.

DR. E. D. FENNER, New Orleans, read a paper entitled:

The Modern Treatment of the Paralysis of Childhood.

It is my intention to confine my remarks practically to two forms of Paralysis in children, namely, Acute Anterior Poliomyelitis and the Spastic Cerebral Palsies. These are the common and very frequent types of paralysis in the young, and what is said of the methods of managing these types will apply with equal force to the other and less common varieties.

Acute Anterior Poliomyelitis is responsible for more of the acquired deformities of children than any other cause. It is a disease peculiar to childhood, nearly all its victims being attacked between one and five years of age. It is more common in the Fall months, appears to prefer children who had previously been in robust health, occurs in epidemics, and is now recognized to be an acute infection, although the exact bacterial organism which produces it is not yet certainly known. In a considerable number of cases it follows an acute attack of entero-colitis.

Until recent years, during my own student days, it was thought to be established that the pathological lesion was confined to the ganglionic cells in the anterior horns of the grey matter of the spinal cord, that its course was, therefore, attended by no pain, and that all other portions of the nervous system escaped any damage, except those trophic degenerative changes which resulted in the nerves whose centres of nutrition had been destroyed. When Strumpell contended, in the late '80s, that there was an acute polioencephalitis analogous to acute poliomyelitis, he aroused a storm of criticism and denial, but to-day we know, in the light of recent studies of the widespread epidemics of this disease in both Europe and America, that the infection is conveyed through the circulation, and that not only the ganglia of the anterior horns, but the neighboring tracts in the cord, the medulla, the brain cortex, and even the peripheral nerves may be attacked by the inflammation. We know that pain may be a distressing feature of the earlier weeks of the disease, and that it is possible to see facial paralysis in a patient who at the same time presents in his limbs the typical paralysis of this disease. The following history illustrates such a rare form of the disease:

CASE 1. A. B., aged 25 months, was brought to me for examination on March 6, 1909. On November 9, 1908, the child was suddenly seized with a fever which lasted two days. She had no vomiting nor convulsions, but for the first three days she lay in a kind of stupor. About the fourth day she became greatly swollen all over, arms, legs, face and abdomen. This swelling lasted about five days, when it subsided. At this time too she had a severe stomatitis. The bowels were constipated, and for a number of weeks enemas were required daily to obtain an action. The mother did not discover that there was at any time any evidence of pain or tenderness in the limbs, but from the first day of the attack she discovered that the right side of the face was paralyzed. It was not for two or three days later that she detected paralysis of the extremities, but it was then seen that the child was paralyzed in the right half of the face, the left upper extremity, and the right leg.

At present the condition is as follows: There is complete right facial paralysis. The right arm is normal. The right lower extremity is weakened, but all the muscles are capable of some voluntary contraction, the patella reflex is diminished but not abol-

ished, and a response can be gotten from all the muscles with a moderate Galvanic current. The left lower extremity does not seem to be involved, all the muscles respond to the current, and the patella reflex is active. She can use the left arm, but the Deltoid shows a decided atrophy, and she can only carry the limb out slightly from the side. She is poorly nourished, the muscles of the back are weak, and she cannot walk, although she is able to stand with slight support. She sits in an attitude of marked round shoulders.

The distribution of the paralysis is very unusual in this case. In the vast majority of cases the lower limbs, or one lower limb, or individual groups of muscles in the lower limb, are permanently paralyzed in this disease, but not rarely the upper extremity is attacked, when the paralysis is nearly always of the Erb's upper arm type, involving the deltoid, spinati, teres, biceps, triceps, brachialis anticus, and the supinator longus, and leaving the muscles of the forearm and hand intact. In a very small percentage of cases the muscles of one-half the abdomen or of the back are stricken, with resulting abdominal protrusion or lateral curvature of the spine. The following cases illustrate these uncommon forms:

CASE 2. Urban R. was seen by me on November 27, 1906, when he was 25 months old. In April, 1906, he waked from a mid-day nap with vomiting, which was followed a few hours later by fever. This lasted for three days, but during this time he had no convulsions, no retraction of the head, and no pain whatever. After the fever subsided he appeared to be helpless in the lower limbs. This continued for a month, when he regained the use of the left limb. This seems now to be practically well, but the right limb shows weakness in the extensors of the knee, and in the dorsal flexors and invertors of the foot. The abdominal muscles of the right side are paralyzed, producing a very striking protrusion when he cries. Massage, electricity, and a brace to support the right foot were ordered, but the child was taken from observation within a short time, and about a year later was brought back for inspection. He had gotten so he could walk, but decided Valgus deformity had developed in both feet as a result of failure to protect the weakened muscles from overstretching.

CASE 3. Bernard B., aged 25 months, was sent to me for examination on August 25, 1908. Four months before he was taken

sick with some intestinal trouble. About a week later he developed paralysis, which seemed to affect chiefly the respiration. The right lower limb was for a time involved, but recovered spontaneously. At present the limbs appear to be normal, but the muscles of the back are much impaired. A decided lateral curvature, dorso-convex, has already developed, and the child stands with difficulty.

These case histories sufficiently illustrate the unusual types of poliomyelitis, and the more common forms will be amply described in connection with the methods of treatment to which I shall pass without further digression.

The medical treatment of the initial stage of poliomyelitis is to a great extent systematic, is generally, if the onset is stormy, conducted in ignorance of the true character of the disorder, and is probably of more comfort to the parents than to the child itself in the majority of cases. Then follows the early stage of paralysis during which little can be accomplished except to make the patient a little more comfortable, maintain its nutrition, and watch the recovery of a part of the paralyzed area, as the acute congestion subsides and the nerve centers resume their functions. During this time something may be done to aid the muscles by preventing the feet from assuming a constant attitude of equinus for instance. It is when the stage of permanent paralysis has been reached that the real treatment of this disease begins. Inasmuch as Poliomyelitis is rarely fatal, and almost never affects the mental power of its victims, the danger from the disease is that it will leave the child crippled for the rest of its life, and the true object of treatment is to develop as far as possible the muscular power, to prevent deformity if it has not yet occurred, to relieve it if it is present, and to give stability to the joints by mechanical or by operative measures, so as to enable the patient to get about and use the limbs.

The treatment may be said to include good feeding, pure air, and tonics to improve the general nutrition. 2. Massage, hot air baths and electricity, to help the nutrition and stimulate the circulation of the affected parts. 3. Mechanical support by means of braces or splints to prevent deformity, or to correct it if present. 4. Operative measures, either manual or bloody, to remove deformity, to balance the action of the muscular groups, or to give greater stability to a frail joint.

It is my sincere belief that these measures are more likely to be effectually done by a man who is interested in the surgery of deformities than by the neurologist. With the exception of tonics and electricity it will, I believe be admitted that all of the other measures are peculiarly a part of his armament, and every competent orthopædic surgeon must understand the use of the galvanic battery in order to carry on his work. Moreover, there is a good deal of doubt at present how much real value there is in electricity in the treatment of poliomyelitis. At a recent meeting of the American Orthopædic Association, Dr. Sachs, a distinguished neurologist was invited to read a paper on poliomyelitis. and in the course of his remarks on treatment he made the following pregnant observation: "Except as a matter of exercise, electricity is practically useless." Nearly every surgeon who has had extensive experience in dealing with cases of infantile paralysis has declared his doubts as to the value of electricity as a curative agent, and even when it comes to testing for the contractility of the individual muscles, which our friends the neurologists naturally believe they are better fitted to do, experience has shown that many a muscle which appears to be hopelessly gone, is simply overstretched, and will regain its contractility if it is relaxed by a suitable splint for a sufficient period of time. I contend, therefore, that one of the gravest errors that is made in the distribution of patients in modern clinics is found in the assignment of these cases of infantile paralysis to the neurological instead of to the orthopædic department.

One of the most important and yet the most widely neglected principles in the treatment of not only infantile, but other forms of paralysis, is the destructive influence effect of constant overstretching upon a weakened muscle. Let us take for example a case in which there has been paralysis of the muscles on the front of the leg. The muscles may not have been entirely paralyzed, but they have been badly damaged, while the posterior muscles are still strong and healthy. The weight of the foot and of the bedclothes, and the pull of the muscles on the back of the leg all tend to produce an attitude of equinus. As a result the anterior muscles are constantly stretched, and soon lose whatever functional power may have been left by the paralytic attack. In a good many cases, if the foot is placed in a corrected attitude and maintained there for a sufficient time the muscles will retract, and re-

gain a considerable degree of power, which by patient exercise and training may be much increased. This observation of the influence of continued relaxation in restoring activity is the key-note to the prevention of deformity. In every case of infantile paralysis it is our duty to support the parts so that at no time the paralysed muscles are subjected to the evil influence of overstretching. It is here that braces exert their beneficial effects in assisting recovery, although they have another important function, which is to support the joints so that the patient may at least be able to stand and walk, even if it be with the aid of crutches.

These principles are exemplified in the following cases:

CASE 4. Stephen C., 8½ years of age, was referred to me on December 17, 1908, by the wife of one of my medical friends, who had become interested in his pitiable condition. It had been suggested, and the boy's family were willing to submit, that it would be better to amputate his legs, so that he might get a pair of artificial limbs upon which he could at least walk about.

His history was as follows: At the age of 18 months he was taken suddenly with fever which lasted about twenty-four hours. He had no pain, but the mother perceived at once that he had lost the use of both his limbs. For six months the mother gave him massage, and for 2½ years he was treated by electricity, during which time the limbs slowly underwent contraction. No preventive measures to avoid this were instituted. Finally they got tired of going for the battery, and abandoned all treatment.

When brought to see me he was the very type of a neglected severe case of infantile paralysis. His general health was good, and the upper body was well developed. He had never been on his feet in his life. The lower extremities were wasted. There was some contraction at the hips, although it was not severe. The knees were fixed almost at a right angle, with the hamstrings taut and the tibiae sub-luxated upon the femurs. The feet were both in an attitude of marked equinus. There was practically no muscular power anywhere in the right limb. In the left, the flexors of the hip have a little power, and at the knee the hamstrings, particularly the biceps have a fair amount of power. At the ankle practically all the muscles are capable of feeble contraction, but it is not sufficient to be of any material use.

Under general anaesthesia, I cut the tendo achilles of both feet,

and by manual stretching brought the feet into a corrected position. With great difficulty the ham-strings were stretched, and the knees brought practically straight, and the limbs put up in plaster of Paris from foot to groin. The tension at the knee was considerable and the boy suffered a good deal for twenty-four hours, but after this was free from pain. After a few weeks the limbs were taken out of the plaster, and a pair of braces with stop joints at the knees were put on. This lad is now on his feet, and as his mother says, "is on the go from morning till night."

In this case there were applied tenotomies to overcome the contraction of shortened tendons, manual correction to stretch contracted tissues, and to restore the natural position, and mechanical support by braces to maintain the correction, and to give stability which would permit the patient to use his limbs.

CASE 5. Howard C., aged 4½ years, was brought to me on June 10, 1907. He was taken sick in June, 1905, with vomiting and fever. The fever lasted two days. He seemed to be in great pain, and it was impossible to move him without severe pain. This lasted for a month or more. In the beginning the entire body appeared to be paralyzed, the first sign of improvement being shown by his being able to lift his head. It was nearly three weeks before he could use his arms. Ultimately the paralysis settled upon the lower limbs. At this time the right limb is much the stronger. All the muscles of the leg are well preserved except the invertors of the foot. Plantar flexion is excellent; dorsal flexion good, but weaker. The peronei are strong, while the tibials are paralyzed. I am unable to get any contraction with any current which he will bear. When he stands the foot is in pronounced valgus above the knee, the muscles are intact, except that the extensor cruris is weak, and he cannot fully extend the knee. When he tries to do so he rotates the limb at the hip, so as to put the weight on the internal lateral ligament. The left limb is much worse. The muscles moving the hip are somewhat involved. There is feeble contraction in the ham-strings, but it is not strong enough to move the limb. I am not certain whether or not I can detect a slight contraction of the extensor cruris. At the foot he is able to move the foot in dorsal and in plantar flexion, but the muscles are very weak. Probably the peronei are the strongest here, but they are not of much use.

From June 10 till September 3rd, he was treated regularly with electricity and massage, and there was certainly some improvement in his condition. The muscles got decidedly stronger, and he walked better, but never alone, and always with the greatest effort for a very short few feet.

On September 3, 1907, having obtained the mother's consent, I performed the following operation upon the right limb, under ether anæsthesia.

The outer two lips of the extensor longus digitorum were cut near the base of the toes, and transferred to the inner side of the foot, where they were sutured to the periosteum near the base of the first metatarsal bone. The semi-tendinosus was now exposed at the back of the knee, its tendon cut as low down as possible, and it was then brought through a tunnel in the skin and sutured to the patella. The silk was now carried down and sewed to the tibial tubercle. All the skin wounds having been sutured subcutaneously, the limb was put up with the knee in extension, and the foot inverted as much as possible. No reaction occurred, and at the end of seven weeks the bandage was removed, a light brace ordered, and he was allowed to go home. The foot was now well corrected, the transplanted muscles seemed to be taking on function, and the tibialis anticus appears to have regained some power of contraction. At the knee the improvement is decided, the semi-tendinosus can be seen to contract vigorously when he attempts to extend the knee.

A letter from the mother, dated September 22, 1908, ten months after the operation, says: "Howard is doing just fine. Walks to school, altogether four blocks, every day, without tiring a bit." Another letter, dated February 20, 1909, says: "Howard is walking everywhere without the aid of his braces, which he has not worn for sometime. I think his foot has a slight tendency to fall back into the position it was in before the operation, not anything like it was before, but just a little."

This case illustrates one of the many procedures of tendon transplantation, whose variety is as great as the number of possible forms of paralysis. The possible combinations depend upon the distribution of the paralysis, and upon the ingenuity of the surgeon.

In doing tendon transplantaion there are certain principles

which should be observed, of which the most important are:

1. The transplanted tendon must be that of a healthy muscle.
2. The line of its pull should be as direct as possible.
3. It should be firmly sutured in its new location to the paralyzed tendon which it is expected to replace, or preferably it should be sutured to the periosteum and underlying bone.
4. It should be taut, and the foot should be secured in a fully-corrected position by means of a plaster bandage for many weeks, until the attachment has become firm and strong.
5. Any deformity must be fully corrected before any attempt is made, to do transplantation.
6. After the operation, the muscles must be protected for a long time, and every effort made by massage, muscle-beating, and other measures to improve the muscles and build them up.

Arthrodesis, which consists in freely opening a joint, removing all of the articular cartilage, and in this way getting ankylosis, is practically suited to those cases in which the whole musculature about a joint is paralysed. It is best suited to the ankle, the shoulder, and to the knee. It may be combined with tendon transplantation, or it may be done alone. It should not be done in children less than seven or eight years of age, because in younger patients it is difficult to obtain firm ankylosis. At the ankle in particular it gives admirable results. The following is a case in point:

CASE 6. Eugene B., 14 years of age, was brought to me on Nov. 24, 1906. When a little over a year old he had a fever lasting about five days, which left him with paralysis of the right leg. At present the limb is much atrophied. The heel is drawn up, and the foot badly everted when he stands, the front of the foot being also badly pronated to compensate for the shortening of the tendon Achilles. He has some knock-knee, and this is getting worse all the time. He limps very badly, and his walk is extremely awkward, as would be expected from so serious a form of equino-valgus. The entire muscular distribution of the external popliteal nerve is paralysed, and the only muscles which respond are those of the calf, which are strong. The following day, Nov. 25, 1906, I did an arthrodesis of the ankle joint, and at the same time tenotomized the

Achilles in order to let the heel down. The localization of the paralysis to the external popliteal nerve supply tempted me to try a nerve grafting, and I exposed the external and internal popliteal nerves behind the knee, cut the external popliteal in two, and planted its distal end into a slit in the internal popliteal. All the wounds healed by first intention, and on Jan. 12, 1907, a brace was substituted for the plaster cast. On March 6, 1909, over two years after the operation, I got a chance to see the final result of my work.

He has a good firm ankylosis of the ankle, which gives him firm support. Unfortunately, the foot is in very slight equinus, instead of being at an exact right angle, but he walks with hardly any limp, and this is due more to lack of effort on his part to adopt a rhythmic gait than to the position of the foot. The knock-knee is no longer noticeable, and the improvement in his appearance and in his capacity to exercise are really remarkable. So far as I can determine, the nerve transplantation was a complete failure, but no trophic disturbance seems to have followed the section of the large nerve trunk.

In a certain group of cases, and especially in children too young for arthrodesis, something of the same effect in giving stability may be accomplished by the implantation of artificial ligaments of stout silk. In the following case these silk ligaments were part of an extensive procedure which has resulted in remarkable improvement of a very bad case of deformity.

CASE 7. Tom D. E., 13 years old, was brought to me on Aug. 22, 1908, to be treated for the terminal deformities following upon a severe attack of poliomyelitis when he was three years old. He has a very bad equino-valgus in both feet. The heel is contracted, the foot everted, and the anterior portion much pronated. His walk is very, very bad, and he is very easily fatigued, so that he walks very little. The left foot is worse than the right, so far as the muscular weakness is concerned, but the deformity is about the same in both. In the left foot the muscles on the front of the foot all respond feebly, the peroneus longus being the best, with the exception of the tibialis anticus, which cannot be made to contract. The anterior group are badly stretched, and the strong muscles of

the calf have drawn the heel up badly. In the right foot the muscles are decidedly stronger, and, of the external muscles, the peroneus brevis is very active.

On Oct. 6, 1908, the following operation was done: In the left foot the peroneus longus was brought over and sewed to the bone near the insertion of the tibialis anticus. The tendo Achilles was tenotomized to bring down the heel, and a heavy silk ligament was placed, running from the inner tuberosity of the tibia to the scaphoid. Exactly the same procedure was done on the right foot, except that the peroneus brevis was transplanted, instead of the longus. The numerous skin incisions, and the very serious trouble with the anæsthetic, prolonged the operation to nearly two hours, but the ultimate result has been extremely gratifying. The patient is still under observation, and is wearing a light pair of braces to the calf, but the feet are perfectly straight. He walks far better than he ever did before, and there can be no doubt that he has been greatly benefited by the operation.

Perhaps the most seductive procedure for the relief of the disability of poliomyelitis is nerve transplantation. To take a paralyzed nerve, implant it into a neighboring healthy one, and witness the restoration of function of the muscles supplied by it, is to achieve the ideal. Unfortunately, this method is still in the experimental stage. The number of cases reported is still comparatively small, and the successes recorded by a few operators have been so uniform that we can hardly control our special wonder. I have myself attempted this method in three cases, one of which has already been mentioned. In another I attempted to restore the function of the deltoid by transplanting the deep circumflex nerve in the axilla into a slit in the neighboring healthy ulnar. So far as I have been able to judge from the report of the father, the result has been entirely negative. My third case, which was in fact my first effort, appears to have been successful.

CASE 8. Virginia M. had been treated by me when she was two years old for an infantile paralysis involving the legs and the right arm. The lower extremities ultimately recovered, but the arm remained useless. The muscles of the wrist were not involved, but the shoulder group and those of the arm were

flaccid. It was a typical Erb's upper-arm type, with the supinator longus also involved. I obtained consent, in October, 1906, to attempt an anastomosis of the musculo-cutaneous nerve into the median. The musculo-cutaneous supplies only the biceps and the brachialis anticus, and I felt that since these muscles were already paralyzed a failure could do the child no damage. The operation was done with little difficulty and with no after complications. In March, 1907, I received a letter from the mother, in which she said: "I am feeling much discouraged. * * * There is no apparent improvement in the arm." In April, 1908, however, she wrote, saying: "There has been much improvement. She can raise the hand nearly to the chin, and move it slightly from side to side. Before the operation it hung entirely limp."

This would seem to indicate that the transplantation had been successful, but I cannot be certain how complete has been the success, since I have had no opportunity to examine the patient myself. It emphasizes one point, however, which is well known in regard to nerve transplantation, and that is that no improvement can be expected for many months after the operation.

I wish now to say a few words in regard to the treatment of the cerebral type of paralysis in children. These cases, in the majority of instances, originate in utero, or during labor, although some of them acquire the condition during childhood, as a result of apoplexy, or meningitis, or some acute infectious disease. The paralysis is hemiplegic, paraplegic, or it may involve all four extremities. The reflexes are exaggerated, the electrical reactions are increased, and the limbs are rigid and spastic. Owing to the greater strength of the flexor muscles, the joints are all held somewhat bent. Thus, in the lower extremity, the hip is flexed, the knee is bent and the heel is drawn up. In the upper extremity the typical attitude is one with the elbow bent, the wrist and fingers flexed and the hand in pronation. Formerly no attempt was made to do anything for these little patients, and even to-day the more severe ones are abandoned to their fate and remain a burden to their family or to some home for incurables. In those cases which are not epileptic, nor exceedingly irritable, and with fair

mental development, much can be done to ameliorate their condition, provided you can get control of the case for at least a year or more. Unless you can get the parents to promise to leave the child in your hands for at least one or two years, it would be better not to undertake to interfere.

In these cases particularly is shown the influence of overstretching in weakening the affected muscles, and not only does the constant overaction of the flexors damage the extensors, but it increases the spasticity and seems to deteriorate the intelligence. The patient whom I bring before you will serve to bring out the principles of treatment, and at the same time will give some idea of what may be expected from it. This child

CASE 9. Willie T., appealed to my sympathies as much as any case I have ever treated. He is now four and a half years old. He was born of a difficult labor, and was badly asphyxiated at birth. I undertook to treat him last June, having obtained the promise of the parents that under no circumstances would they withdraw him from my care until two years, unless with my consent. At the time the treatment was undertaken the little fellow presented as bad a case of spastic rigidity as I have ever seen. His lower extremities were constantly in a state of spasm. The hips were flexed, the knees bent and held closely locked together, and the feet were in the attitude of equinus. Any movement precipitated a violent series of contractions, in which the upper extremities participated fully. In addition, as you see is still the case, the head and trunk shared in the trouble. I cannot adequately describe the rigidity of the lower extremities when any attempt was made to move them. It was almost impossible to separate the thighs or to straighten the knees or feet.

Under chloroform, sufficient relaxation was obtained to permit the application of a pair of plaster breeches, including the feet, which were applied with the feet at right angles to the limbs, the knees fully extended and the thighs as widely separated as possible. For a few days afterwards the violent spasms of the muscles gave him considerable pain, but this soon disappeared and the child was kept in breeches until March, 1909—about eight months. When they were removed, every sign of spasticity had disappeared. He was able to

separate the limbs freely, the knees were perfectly mobile and the feet were in normal position. A pair of braces with a stop-joint at the knee were now put on, and persistent, daily lessons have been given him in walking. At present I am engaged in the work of overcoming the spasticity of the upper limbs. There is much yet to be done, but the marvelous change in the lower limbs, the already perceptible change in the upper extremities and the fact that the mental condition has undergone a very striking change for the better, lead me to hope that before the two years are up this child will be changed from a helpless creature into a condition at least far better than when he fell under my care.

My experience in the treatment of both poliomyelitis and cerebral palsies in children are very much more numerous than the cases I have been able to cite, and I should have liked to comment upon some of my failures and their causes, but I have already encroached too long upon your patience, so that I shall close with the statement that only those who have carefully studied this type of cases can realize how many cripples and how many deformities are the product of the apathy and incredulity of parents and of doctors as to the possibility for good which can be expected from efficient preventive and corrective orthopædic treatment.

Orleans Parish Medical Society Proceedings.

President, DR. W. H. SEEMANN.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans.

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.

DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF NOVEMBER 22, 1909.

DISCUSSION OF DR. POTHIER'S PAPER.

DR. ALLEN: Dr. Pothier's paper has brought out some interesting points. Some years ago, in the medical service of the Charity Hospital, I saw a case of pernicious malaria, in which the patient died three days after admission. Drs. Halsey and Guthrie were asked to see the case, in which the average number of corpuscles in the microscopic field were fifty and the number involved with the malarial parasite was seventeen. I have seen no statement in print in which the figures were so large.

DR. G. F. PATTON: Dr. Pothier's account of the case in which the malarial organism was abundantly present in the blood without any febrile symptoms offers an interesting corroboration of Manson's observations in Africa, where, in the native villages, he found numbers of children apparently healthy, but whose blood was teeming with the plasmodium, affording a ready source of infection for others.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Dr. John J. Archinard.

Too late to have the sad fact mentioned in our last issue, shortly after Christmas, Dr. John J. Archinard died in this city, that of his birth, after a short illness. We share the grief of his family and friends.

Though he had attained an important position in his profession, he was still young in years. Finely educated, well trained in the laboratory by his elder brother whose assistant he had been for some time, he was professor of bacteriology and microscopy in the New Orleans Polyclinic for several years, up to the time of his death.

He was a good physician, a skilled microscopist, a successful teacher. He was impulsive, but kind and generous. A good fighter, he was a true friend.

For one of his age he had filled many positions of honor and trust and he always made good. Whether as manager in a medico-political contest, or in the chair as president of his parish society, or as regimental surgeon compelling the authorities to provide healthful quarters for the troops in his charge, he was always resourceful and active.

The knack of making friends he possessed to a high degree, both in the rather evanescent form of being "popular" and in the more substantial way of winning those who remained staunch to the end.

Above all he was loyal—he will be missed.

The U. S. P. H. and M. H. Representative in New Orleans.

It is a custom of the U. S. Public Health and Marine Hospital Service to change the surgeon in charge in an important city, like this one, after a term of four years. This is done for several reasons with which we have nothing to do at present.

According to this rule, Dr. J. H. White would probably have been transferred from this port under ordinary circumstances by this time. He might have been sent to a more important port and again he might not. At any rate, the people here wanted him and they were not slow in petitioning and asking that Dr. White be left here.

We are glad to learn that the request has been granted and that Dr. White will remain in charge of this station for four years longer at least and we hope the doctor is as well pleased.

By his tact and unobtrusiveness as well as by his knowledge and experience he has made hosts of friends among the profession and the people at large.

We have confidence in his ability and integrity and feel it is a safeguard to have him with us.

Hook-Worm Conventions.

Conferences and conventions galore have been held under various auspices and have vied with each other in enthusiasm, not to say exaggeration, to such an extent that people are led to believe that the South is a disease-ravaged country doomed to destruction. The wonder is that this section is still the most American part of the United States, with a lesser proportion of immigrants, on the one hand, and a proportionately larger increase of whites over blacks, on the other, as well as a healthy increase of population in general.

We have been boasting, and with some justification, not only of the above but of what wonderful strides the South has been making industrially, agriculturally, and financially. What heights would we not have reached but for the hookworm, pellagra, and—whatever the next bugaboo is to be? It makes us dizzy to contemplate!

Seriously, it is far from our purpose to encourage an ostrich policy of shutting out eyes to danger. Earnest scientific labor is in order, but not that of the advertising kind. Yellow fever has been practically disposed of and malaria is on the wane, but the work was not accomplished through loudly heralded conventions nor scareheads in the newspapers.

Let us be sane instead of sensational. Hookworm is neither

hard to diagnose nor difficult to eradicate from the individual, while well understood sanitary measures are sufficient to eliminate it gradually from any community. Of course work and money are needed, but let the work be sure, steady, systematic, and let the funds be secured legitimately as for putting into effect any other hygienic and sanitary principles.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

THE LATER RESULTS IN OVARIOTOMY, ESPECIALLY IN CASES OF DOUBTFUL CHARACTER OF THE DISEASE.—Prof Hofmeier (*Surgery, Gynecology and Obstetrics*,) contributes an exceedingly valuable paper on the end results in a large series of cases of ovarian tumors. From his results he attempts to answer the following questions: What are the consequences of the removal of the various kinds of tumors? Is undisturbed life possible thereafter? Are the results variable and if so, what is the cause?

To answer these questions it is necessary to have a strict classification of the various tumors and this classification may be anatomical, or clinical. Hofmeier combined the results of his experience with both classifications and made the following classification: 1. Tumors of a definite nature (benign or malignant). 2. Tumors of a doubtful nature.

The following conclusions were based upon 600 cases.

Tumors of the First Group.—Retention cysts, dermoids and fibroids are local diseases and their removal is of merely local importance. *Adeno-cystoma pseudomucinosum*. — These are the most numerous and belong to the class of definite tumors because they lack absolutely the tendency to invade surrounding tissue. It is often impossible to determine exactly their nature since only a very small portion may be malignant, and it is almost impossible to say in the event of malignant recidive later that the primary tumor was really benign. It has been necessary in only one case

to repeat the operation on the same woman on account of a second benign cystadenoma of the other ovary seven years later. The later results in these cases are exceptionally good. *Carcinoma of the Ovary.*—There is no doubt that a great many bilateral ovarian carcinomata are metastatic from other organs of the body, especially the intestines, stomach, etc., and it is clear that in these cases ovariectomy will not cure the disease. Five per cent. is not too high an estimate of the frequency of metastatic involvement. The operative results are generally bad. Even the primary results are much worse than in other ovarian growths. With a general mortality of 2 to 3 per cent. after ordinary ovariectomy, Hofmeier reports 23 per cent. mortality in malignant cases. More than one-half of the surviving patients will die within the year. Should both ovaries be removed, if only one is diseased? His results show that complete cure in cases of carcinomatous degeneration of one ovary is not only possible, but also that the tendency of the other ovary to the same fatal disease is not so considerable that destruction is necessary. But the prognosis is more unfavorable if the other ovary is also degenerated. Only a few cases are known in literature where death has not followed within a year. This bad prognosis will be improved in the future if, as a matter of principle, the uterus is destroyed together with the ovaries. Several times subsequent metastases on the mucosa of the uterus were found.

The following conclusions may be drawn from the class of definite tumors:

1. With the exception of carcinoma, ovariectomy in retention cysts and adeno-cystomata gives excellent results: the danger of a secondary affection of the other ovary does not exist; the danger of a later spontaneous (idiopathic) affection is slight. Therefore removal of the one affected ovary will be sufficient. Special precaution should be taken during the operation to avoid the possibility of secondary implantations of the pseudomucincystomata.

2. If a carcinomatous degeneration of the removed tumor is suspected, removal of the other ovary when it appears to be healthy is not absolutely necessary in young women. If a microscopical examination indicates that the ovary is affected, relapse will occur in spite of its removal; if it is healthy a cure is possible without disturbing it.

3. Such cases and cases of bilateral affection should be operated on and the uterus removed at the same time.

4. Operation should be attempted in all cases where removal seems possible.

5. Resection of a growth from the second ovary is permissible in case of retention cysts, fibroids, dermoids; in pseudomucincystomata it should be only done if the patient is ready to risk second operation later. It is absolutely inadvisable in cases of carcinoma.

Under the group of tumors of a doubtful nature Hofmeier places cystadenoma serosum papillaræ, pseudomyxomata, sarcoma, teratoma. The first group was formerly classed as malignant, but the real nature of these tumors has been recognized and the papillary carcinoma and other papillary tumors and distinguished from the cystadenoma serosum. In spite of the most suspicious symptoms they lack the anatomically malignant characteristics. Although the anatomically malignant qualities are absent, these tumors are of great importance owing to the permanent, injurious effect on health, to local symptoms, to the not infrequent relapses after operation, to the implantations on the peritoneum and the repeated accumulation of fluid in the abdomen. It is an open question whether the papillary implantations may be carcinomatous later or not. Hofmeier has not seen such a case and when such a condition is suspected he thinks the primary tumour was carcinomatous.

Summing up, we may say that in spite of abundant peritoneal implantations and bilateral growths cure is possible, but that the general state of health may be seriously impaired, or death may result in spite of the anatomically benign nature of the growth by the return of the disease on the pedicle, and peritoneal implantations with copious secretion.

Pseudomyxomata.—These may have very thin walls that break easily and discharge into the peritoneal cavity the tough mucilaginous masses like a real myxoma. These masses occasionally cause implantation over the whole peritoneum and intestines so that it is absolutely impossible to remove and to clean the cavity. In spite of these fatal complications recovery is undisturbed in most cases and the final results are unusually good. If there is a tendency to invade adjacent tissues the later results are doubtful.

Destruction is often difficult on account of their deep and subserous development on the pelvic floor. The results in pseudomyxomata, when anatomically non-malignant, are much more uncertain than in simple pseudomucincystomata.

Sarcoma.—The different varieties of sarcoma are included in the doubtful class because it is utterly impossible to separate histologically fibrosarcoma from sarcomata sensu-strictiori, although the former are no doubt benign while the later are malignant like carcinoma.

Teratoma.—Opinion concerning their malignant nature differ and no doubt some of them have been malignant, judging from the sarcomatous degeneration of the connective tissue.

From Hofmeier's results it is clear that all the tumors grouped as of doubtful nature have a common tendency to produce implantations on the peritoneum and intestines and rendering further operation probable, to return on the pedicle and to attack the other ovary. Many advise the removal of the other ovary, but, Hofmeier believes this too severe on young women and can only be justified if such tendency to spontaneous affection of the second ovary is absolutely proved.

As the tendency of ovaries to be affected by metastases from other organs of the peritoneal cavity is great enough, as far as we know, it seems possible that later growths in the other ovary are not spontaneous but metastases, and they are actually found in weak and soft tumors.

MILLER.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

TREATMENT OF HEADACHE.—Lemoine and Gérard give, in their "*Formulaire-consultations Médicales et Chirurgicales*," the main lines of the treatment of headache. It is a symptom associated with numerous causes; diatheses, toxic or infectious diseases, neuroticism, and others. It comes on suddenly, or persists almost without ceasing. It is distinct from migraine, being seated around, behind or upon the cranium; the pain is deep and penetrating or superficial, and at times a simple sensation of emptiness. It is necessary to distinguish each variety.

The Headache of Arthritism.—Very obstinate and painful, seated on the forehead and the temples. Two teaspoonfuls of bicarbonate of sodium should be taken during the day in Vichy water, or 2 gm.

(gr. xxx) of lithium benzoate. Morning and evening a cachet should be taken containing:

R

Quinin Velarianatisgr. iii.

Pyramidonigr. iiss.

Lithii Carbonatisgr. viiss.

Plenty of warm drink should be taken at meals, the bowels should be washed out every day, and a hot bath should be taken, or hot lotion applied to the head. In some cases a small dose of potassium iodide (gr. iii.) may be added to the alkalies.

The Neurasthenic Headache.—The best treatment is the static electrical bath and effluviation when it is possible. The following ointment should be rubbed in behind the ears:

R

Mentholisgr. iv.

Paraffin moll.....3v.

Two cachets containing the following should be taken during the day:

R

Pulveris Valerianæ Camphoræ.....ana gr. iii.

Methylene-bluegr. iss.

Pulveris Myristicægr. ¾.

Careful attention must be paid to the digestive functions and the bowels.

The Headache of Arterio-sclerosis.—This is associated with the condition of the arteries, thickening of the membranes and cerebral anemia. From time to time shall blisters should be applied behind the ears. For occipital pain the actual cautery should be lightly applied to the neck every day for 25 days. Two or three table-spoonfuls of the following should be taken daily:

R

Sodii Glycerophosphatis, Potassii Glycerophosphatis, ana.....3i.

Syrupi Codeinæ3iss.

Tinct. Nucis Vomicae.....mxxx.

Aqu. Menth. Piperitæ3iii.

Compresses soaked in some sedative lotion should be applied.

The Syphilitic Headache.—The specific treatment must be carried out, to which may be added arsenic and the phosphatæ.

R

Liquoris Arsenicalismxxx.

Sodii Phosphatis $\overline{3}$ ss.Aquaë. destillatæ $\overline{3}$ x.

If the headache is nocturnal, give 5 grains of veronal in a cachet at bedtime. In obstinate cases, perform lumbar puncture and remove 10 c.c. ($\overline{3}$ iii.) of fluid.

The Practitioner.

EXPECTORANTS IN ACUTE BRONCHITIS.—My experience has taught me that the expectorants are very untrustworthy, but I should not want to be without them. In the first division I use ipecac and ammonium chloride; in the second, senega, benzoic acid preparations—especially the sodium benzoate—turpentine, the alkaline carbonates, and sometimes belladonna. The iodides I reserve for subacute or chronic cases; apomorphine I use only exceptionally, when the others fail, my own experience not being so favorable as that of many who seem to be more impressed by experimental than by clinical results.—*F. Forchheimer, The Prophylaxis and Treatment of Internal Diseases.* J. A. S.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

INTRASPINAL INJECTIONS OF MAGNESIUM SULPHATE IN CHOREA. Marinesco (*Sem. Med.*, November 18, 1908) has treated four cases of Sydenham's chorea by the above method, and describes the results obtained in these cases. The solution he employed for the injections was a 25 per cent strength of crystallized sulphate of magnesia, which was prepared a short time before being used, and, generally speaking, he withdrew first a quantity of cerebrospinal fluid equal to the quantity of sulphate of magnesia solution which he injected. The first case was a girl of 14, who had suffered from chronic symptoms for a short time only before admission to the hospital on June 2, 1908. At first limited to the left side, the movements soon spread and became generalized. On July 5, $3\frac{1}{2}$ c. cm. of the magnesium sulphate solution was injected into the spinal canal, and three-quarters of an hour later the intensity of the cho-

reiform movements had greatly diminished. The next day the movements returned in the legs, and as they did not diminish another intraspinal injection (3 c. cm.) was given on July 30. A half hour later the patient complained of headache and formication in the limbs and back. The choreic movements had, however, diminished, though they still persisted in the arms. The next day the movements were reduced to a minimum, and by August 2 they had completely disappeared. The second patient was a girl of 22, who had already suffered twice from chorea. Her present attack began July 11, 1908, and on admission to the hospital, July 18, she had all the signs of a generalized chorea. On July 18, 5 c. cm. of the magnesium sulphate solution were injected into the spinal canal. Following the injection her pulse rate, which had previously been 104 per minute, fell to 68, and one and a half hours later she became numb in the lower extremities and could not move these, and these no longer showed choreic movements. A few hours later the patient slept, and it was then seen that her respiration rate was 34 and her pulse rate 106 to the minute, and her temperature was slightly raised. Three days later the numbness had disappeared, as had also the choreic movements. The third case was a girl of 15, who for two months had had choreic movements and on admission to the hospital on August 13, 1908, these were seen to be severe and generalized. The next day, 3 c. cm. of the magnesium sulphate solution were injected, and following on this there was a slight increase in the pulse rate and increased agitation of the patient; the legs appeared numb and she could not move them; the choreic movements had diminished. Four days later the patient became somnolent, and the choreic movements became still less, but she complained of headache and nausea, which continued until August 20. At this date the choreic movements were considerably less, and the patient could use her hands to feed herself and could walk and write. On August 26 the choreic movements were noted in the arms and face, and on this day a fresh solution was given, preceded by a sub-cutaneous injection of morphine. The following day all choreic movements disappeared and did not return. The last case was a girl of 11, who had suffered from choreic movements for a few weeks before admission to the hospital on September 9, 1908. She was then found

to exhibit choreic movements of moderate intensity and limited to the right side; there were also movements of the face, eyelids and tongue. On September 11, 4 c. cm. of cerebrospinal fluid were withdrawn and $2\frac{1}{2}$ c. cm. of magnesium sulphate solution injected, this being preceded by a subcutaneous injection of morphine. One hour later the choreic movements had become less marked, but the patient complained of a headache and of numbness in the limbs. The following day the choreic movements were still less manifest, but as movements of the right arm and face did not cease, another injection was given on September 13. Fifteen minutes later the pulse quickened, the patient felt nauseated, complained of headache and vertigo and the temperature rose slightly. The following day the choreic movements became much less marked and became less and less, and by September 18 had altogether ceased. The author points out that these cases show the intraspinal injections of sulphate of magnesia exercise a remarkable sedative effect on choreic movements and that by this treatment the disease completely disappears after a few days and that these results are superior to those obtained by any other method of treatment. This method of treatment is however not without drawbacks; thus Meltzer and Auer have found that respiratory troubles occur and others have noted motor and sensory disturbances and sometimes urinary troubles. Some of the ill effects of the injections appear to be due to the toxicity of salts of magnesia, but it is also possible that they may be due to impurities in the salt employed. The author has found that sub-cutaneous morphin injections diminish the headache and pains following intraspinal injections, and he was never seen urinary troubles follow in young subjects. He is convinced that this method of treatment constitutes an excellent therapeutic measure in Sydenham's chorea, and may be employed in both mild and severe cases.

VAN W.

THE EFFECTS OF THE ACTION OF THE ROENTGEN RAYS ON THE NERVE CELLS OF THE SPINAL CORD. (Giovanni Donzello, *II Pisani*, vol. 28, *Fasc.* 3.) Two groups of guinea pigs were exposed to X-rays at a distance of 15 cm. during 16 to 180 minutes. In the case of the first group, medium strength of rays was used, a current of 2 amperes with 50 interruptions a second and a spark

length of 12 cm.; in the second group hard tubes were used, with a current of 7 amperes with 30 interruptions a second and a spark of 30 cm. The animals were killed at the end of the experiment. At the cessation of the experiment immediate paraplegic symptoms were observed in all cases, but if the animals were kept alive a few hours these passed off and were thought to be probably due to the cramping action of the animal holder. The nervous system was investigated by thionin coloration and by the fibrillar method of Cajal and Donaggio. These last methods showed no very striking change. In some cases the fibrils appeared swollen and run together. Thionin coloration showed frequent tigrolysis, a punctuate appearance of the cell body and often slight vacuolisation. The nuclear membrane often appeared to be ruptured and the nucleus vacuolised.

VAN W.

Department of Surgery.

In Charge of DR. FELIX A. LARUE and DR. P. A. THIBAUT, New Orleans.

We abstract from the proceedings of the American Surgical Association the following from a preliminary communication on "The fecal origin of some forms of post-operative tetanus (ano-rectal, intestinal, puerperal, genital, and lower pelvic operations) and its prophylaxis by proper dietetic or culinary measures," by Dr. Matas.

Among other things the doctor said: "Abundant experience has show that while the risk of tetanus infection can be absolutely eliminated in all operations *upon sterile tissues in which a vigorous post-operative asepsis can be maintained until healing has occurred*, the liability to lockjaw cannot be removed in those regions in which post-operative asepsis cannot be secured."

The parts of the body, most exposed to direct fecal contamination and thus liable to tetanic infection, are mentioned. Disinfection and asepsis are justly credited with enormously reducing the liability to this form of infection, even in those parts of the body most exposed to fecal contact.

"However," says the doctor, "the occasional post-operative deaths, which occur from time to time in the practice of competent and

clean surgeons, clearly point to another source of danger which is not dependent upon defects of technique or contaminated material (e. g., imperfectly sterilized catgut), but to other sources of infection outside of, and apart from, the operative act itself which have not been adequately appreciated.

"This hitherto unrecognized or disregarded factor in the causation of post-operative tetanus—at least in regions liable to fecal contact—is the direct contamination of the alimentary canal and its contents with living tetanus bacilli and their spores, swallowed in raw, uncooked vegetables, berries, and other fruits which are cultivated in fertilized or manured (i. e., tetanized) soil."

"It may be a mere coincidence, but it is a fact that in all the cases of post-operative tetanus occurring after operations in regions liable to fecal contact which have been investigated by the author (two in his own practice) the patients had eaten copiously of uncooked vegetables (known to be most frequently contaminated with tetanus germs and spores) within twenty-four and thirty-six hours before the operation."

Mention is made of the passage of the drumstick bacillus and its spores through the alimentary canal of animals, especially the herbivorous horse and cow; of the probable increased virulence of the germs by their temporary residence in the lower intestinal tract; of their resistance to the action of the digestive juices.

"In view of the fact," quotes the doctor, "that 5 per cent. of all normal men harbor the tetanus bacillus or its spores in an active state in the intestinal canal, and that the percentage of contaminated individuals is increased to 20 per cent. in hostlers, stablemen, dairymen, drivers, etc. (Pizzini), the possibility of tetanus from fecal contact must always be kept in mind, especially when operating upon the anorectal region, perineum, and genito-urinary organs of both sexes in unprepared subjects."

He urges that no operation should be performed upon parts exposed to fecal contamination (hemorrhoids, fissure, fistula, stricture, perineoplasty, vaginal operations, etc.) without anti-tetanic preparation, which consists in (a) purgation, three days before the operation; (b) the suppression of all *raw*, uncooked food, especially green vegetables, berries, and other fruit (for the same period of time before the operation.) Anti-tetanic serum, 10cc should be administered when dietetic preparations are lacking.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

The president has appointed the following Chairmen of Sections and Committeemen for the year 1909-10:

SECTION ON PRACTICE ON MEDICINE—Chairman, Dr. George S. Bel, New Orleans, La.

SECTION ON SURGERY AND ANATOMY—Chairman, Dr. C. W. Allen, New Orleans, La.

SECTION ON NERVOUS AND MENTAL DISEASES—Chairman, Dr. L. L. Cazenavette, New Orleans, La.

SECTION ON DISEASES OF CHILDREN—Chairman, Dr. R. P. Jones, Clinton, La.

SECTION ON OBSTETRICS AND GYNECOLOGY—Chairman, Dr. R. Gordon Holcombe, Lake Charles, La.

SECTION ON PATHOLOGY AND PHYSIOLOGY—Chairman, Dr. C. W. Duval, New Orleans, La.

SECTION ON CUTANEOUS MEDECINE AND SURGERY—Chairman, Dr. Ralph Hopkins, New Orleans, La.

SECTION ON HYGIENE AND SANITARY SCIENCE—Chairman, Dr. Thomas Ragan, Ruston, La.

SECTION ON LARYNGOLOGY, OTOTOLOGY AND RHINOLOGY—Chairman, Dr. Oscar Dowling, Shreveport, La.

SECTION ON OPHTHALMOLOGY—Chairman, Dr. H. N. Blum, New Orleans, La.

COMMITTEE ON SCIENTIFIC WORK—Dr. E. M. Hummel, ex-officio, chairman; Dr. J. M. Batchelor, Dr. W. B. Chamberlin, Dr. I. Cohn, Dr. C. L. Eshleman, Dr. E. S. Hatch, Dr. A. C. King, Dr. L. H. Landry, Dr. J. A. Storck.

PUBLICATION COMMITTEE—Dr. E. M. Hummel, ex-officio, chairman; Dr. J. B. Elliott, jr., Dr. Urban Maes.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION—Dr. John Callan, chairman; Dr. L. Lazaro, Dr. E. Denegre Martin, Dr. E. K. Sims, Dr. J. W. Sanders, Dr. E. L. Erwin, Dr. W. L. Grace, Dr. F. R. Tolson, Dr. J. G. Martin, Dr. B. W. Smith.

COMMITTEE ON MEDICAL EDUCATION—Dr. I. I. Lemann, chairman (1911); Dr. S. W. Stafford (1910), Dr. L. G. LeBeuf (1912).

COMMITTEE ON CONFERENCE WITH THE PRESS—Dr. Isadore Dyer, chairman; Dr. J. A. Tucker, Dr. H. J. Riche.

COMMITTEE TO CONFER WITH THE BOARD OF HEALTH—Dr. E. H. Walet, chairman; Dr. Emil Regard, Dr. A. L. Metz, Dr. George S. Brown, Dr. J. W. Lea.

COMMITTEE TO CONFER WITH THE LOUISIANA BAR ASSOCIATION—Dr. F. W. Parham, chairman; Dr. W. W. Butterworth, Dr. H. S. Cocram.

FRATERNAL DELEGATES—To Arkansas: Dr. A. A. Herold, Alternate: Dr. R. W. O'Donnell; to Texas: Dr. S. M. Hummel; alternate: Dr. E. Denegre Martin; to Mississippi: Dr. S. M. D. Clark, alternate: Dr. H. B. Gessner.

At the last regular meeting of the Ouachita Parish Medical Society, the following officers were elected for the ensuing year: President, O. W. Cosby; vice-president, G. M. Snellings; secretary, F. C. Bennett.

The study section was reorganized and will meet weekly.

At the next regular monthly meeting Dr. Cosby will present a paper on The Physiology of the Thyroid Gland.

There being no regular prepared scientific paper for this meeting, Dr. Gray and Dr. Cosby discussed the necessity of original research. The need of a better fraternal feeling among the members was emphasized by the speakers.

The need of more confidential relations between physician and layman, to the end that the absurd misapprehensions of the latter on medical subjects, might be corrected, was urged on the members. Meeting adjourned to meet on the first Friday in February.

At a regular meeting of the Bi-Parish Medical Society held at Natchitoches on Wednesday, Dec. 8th, 1909, following aswered to roll call: Drs. C. E. Edgerton, J. S. Stephens, W. T. Williams, Z. T. Gallien, J. T. Keator, E. W. Breazeale, S. J. Kearney, J. B. Hargrove, and J. B. Pratt. Mr. D. Ruscar and Mr. McClung as invited guests. The president introduced Mr. Rusca, who delivered the address of welcome. Dr. C. E. Edgerton failing to prepare a paper on Surgery, gave instead, a detailed account of gun shot wound in infant of 6 months. A 22 caliber rifle ball entering near

the top of the skull, making its exit at the base, to the left, near the mastoid process. Much brain substance exuded, yet recovery was complete, with no loss of mental or muscular power. Dr. Z. T. Gallien read a paper on fever, causing considerable discussion by Drs. Pratt and Stephens. Dr. C. E. Edgerton detailed an interesting case of bladder disorder in a vigorous male, in which a diagnosis could not be made.

Miscellaneous business: Moved and seconded that this Society address a letter to every physician in Red River and Natchitoches Parishes, impressing upon them the necessity of becoming members to enable the two parishes to have more votes in the house of delegates of the State Medical Society. Drs. W. T. Williams, J. B. Hargrove and E. W. Breazeale were appointed as a committee to draft such letter; carried. Moved and seconded that the spring and fall meetings of this society be held as open meetings to which the public be invited; carried. Drs. Huggins and Edgerton were appointed a committee to make arrangements, formal announcement, issue invitations, etc. for such meeting to be held in Coushatta on Wednesday, April 6th, 1910, and Drs. Hargrove and Pratt, a like committee for the meeting at Natchitoches on Wednesday, Dec. 7th, 1910.

The following appointments on program for the next meeting were made: Gynecology, papers by Drs. J. T. Keaton and Joe Bath, discussion, Drs. Sam Kearney and W. T. William; surgery papers by Drs. C. E. Edgerton and J. B. Pratt, discussion by Drs. J. B. Hargrove and Joe Bath. Practice, papers by Drs. E. W. Breazeale and J. S. Stephens, discussion by Drs. Z. T. Gallien and Sam Kearney.

There being no further business the meeting adjourned to convene at Coushatta on Wednesday, April 6th, 1910.

The members then attended a banquet of ten covers, to which a number of representative Natchitoches citizens were invited.

E.W. BREAZEALE, *Sec'y-Treasurer.*

ATTAKAPAS CLINICAL SOCIETY.—A regular quarterly meeting of the Attakapas Clinical Society was held at Crowley, Jan. 12th, 1910. The members were received and entertained at the Elks Club where the Scientific Meeting was also held.

Dr. H. A. King, of New Iberia, read a paper on the "Treatment of Typhoid Fever." The paper was extensively discussed by Drs. Eustis, Toler, Dock, and others.

Dr. George Dock gave a demonstration of blood pressure apparatus and sphygmographic tracings, which excited great interest. Discussion was added by Drs. Eustis and Hummel.

Dr. E. M. Ellis read a paper on Intestinal Obstruction and other Acute Conditions of the bowels requiring surgical or heroic treatment. This paper was discussed by Drs. Holcomb, Eustis, and others.

The scientific meeting consumed four hours, but sustained interest characterized the sitting. A number of new members were elected and the report of officers indicated a prosperous condition of the Society, with a more promising future.

There were present as members: Drs. Eustis, Ellis, Hoffpauir, Mims, H. C. Webb, Brooks, Carstens, Williams, J. G. Martin, Holcomb, P. D. Hayes, Boykin, King and Clark. Drs. George Dock and E. M. Hummel, of New Orleans, were present by invitation.

The success of the Society is notable and has given rise to the projected plan now in hands of a Special Committee of the Louisiana State Society looking towards the grouping of Parish Societies into larger bodies constituting District Societies, with the Parish Society as a unit.

The failure of the small Parish Societies to meet at regular intervals has been disappointing, and it is thought that the above plan might insure better cohesion for these organizations. It is to be hoped that the plan will be thoroughly worked up. At any rate the Attakapas Society stands as the most stable and live Medical Society in the State except the State Society proper and those of several of the Parishes containing larger towns.

Medical News Items.

ORLEANS PARISH MEDICAL SOCIETY HOLDS ANNUAL SESSION.—Dr. A. Ledbetter was installed president of the Orleans Parish Medical Society for the year 1910. The session was marked by an interesting lecture by Dr. Jas. J. Walsh, "Superstitions in Medicine." Outlining the work for the coming year, the new president

said a new and better domicile must be provided for the Society, the membership must be built up, and physicians must be encouraged to report more their interesting cases.

ANTI-TUBERCULOSIS ORGANIZATION. — On January 17th the Georgia Antituberculosis and Sanitary Society was made a permanent organization. Physicians and scientists from all parts of the State were in attendance at the meeting. Dr. Geo. Dock, of New Orleans, was one of the speakers.

NEW MUNICIPAL BOARD OF HEALTH AT HOUMA.—A new Board of Health was formed at Houma recently. The following members were elected: Dr. C. M. Minvielle, Dr. J. B. Duval, Dr. Hugh St. Martin, Capt. J. H. Hellier and A. M. Dupont.

DOCTORS' CLUB AT BROOKHAVEN.—At a meeting of the Doctors' Club at Brookhaven on Dec. 30, the following were elected officers for the ensuing year: Dr. McLeod, president; Dr. Arrington, vice-president; Dr. Jones, secretary. A committee of three was appointed to prepare a program for the next three months, and it was agreed that each member take his turn, in alphabetic order, as quizmaster.

NOBEL PRIZES AWARDED.—The Nobel prizes, instituted under the will of Dr. Alfred Bernard Nobel of Sweden, have been awarded for 1909. The prize in the department of physics is divided between William Marconi, inventor of wireless telegraphy, and Prof. Ferdinand Braun, director of physics at the University of Strassburg; chemistry, to Wilhelm Oswald, professor of chemistry at Leipzig; physiology and medicine, Prof. Emil Theodor Kocher, of the University of Berne; literature, to Selma Lagerlof, a Swedish author. The peace prize is divided between Baron d'Estournelles de Constant, of France, and Monsieur Beernaert, of Belgium. Each prize amounts to \$38,672.

CONSOLIDATION OF MEDICAL JOURNALS.—Dr. William J. Robinson, editor of the *Critic and Guide*, *American Journal of Urology*, and *Therapeutic Medicine*, has purchased the *Chicago Clinic* which has had an uninterrupted existence for 23 years (though known during the past year under the title of *Practical Therapeutics*) and has consolidated it with *Therapeutic Medicine*. The consolidated journal will be published monthly and it is believed that under

the active editorship of Dr. William J. Robinson it will become a strong and important medical publication. The publication office is located at 12 Mt. Morris Park W., New York.

THE INTERNATIONAL AMERICAN CONGRESS OF MEDICINE AND HYGIENE will be held in Buenos Ayres, Argentine Republic, on May 10, 1910, in commemoration of the first centenary of the May Revolution, under the patronage of His Excellency, the President of the Republic. In order to facilitate the contribution of papers from the United States the President of the Congress, Dr. Eliseo Canton, has appointed a committee of propaganda, of which Dr. Charles H. Frazier and Dr. Alfred R. Allen, both of Philadelphia, are respectively chairman and secretary. The congress has been divided into nine sections, all represented in the United States by the chairmen, Dr. George Dock, of New Orleans, being chairman of the Section on Medicine and its clinics. The official languages of the congress will be Spanish and English. Papers may be sent direct, or to the secretary, at No. 111 South 21st street, Philadelphia.

AS A MEMBER OF THE ALUMNI COMMITTEE and specially delegated to look after the interests of Tulane University, Dr. H. J. Scherck of St. Louis has written to Dr. I. I. Lemann, President of the Tulane Alumni, calling attention to the already numerous requests for reservations for the next meeting of the American Medical Association which takes place in St. Louis in June. Dr. Scherck suggests that the number of Alumni expecting to attend should be determined as soon as possible in order that he may arrange for their accommodation and for headquarters with the Hotel Committee. A banquet will be arranged to take place so as not to interfere with other entertainments. Alumni are requested to communicate to Dr. Lemann their intention to attend in order that he may comply with the request of Dr. Scherck.

THE CHICAGO MEDICAL SOCIETY on January 11 adopted resolutions recommending in substance the following changes in the policy and management of the American Medical Association: "That the laws of the American Medical Association should be so amended that no person be permitted to hold more than one executive or honorary office at the same time; that the three offices of the official organ should be separated; that the positions of

editor and secretary should be filled only by men educated in regular scientific medicine and of unimpeachable professional record; that all officers and employes be bonded; that provision be made for the initiative and referendum, and that no member be expelled from the Association without a fair trial."

THE ANNALS OF SURGERY COMPLETES ITS FIFTIETH VOLUME.—The December number of the *Annals of Surgery* (Philadelphia), which completes the fiftieth volume of that journal, is worthy of more than passing notice. The cosmopolitan character of the journal is seen from the list of contributors, which comprises the leaders in surgery of England, Scotland, Denmark, France, Italy, Hawaii, Canada and the United States. Twenty-two articles form a number of more than four hundred pages. The illustrations, some of which are colored, are profuse, making a volume which merits the term of a jubilee number. Such an event in the history of any medical journal is worthy of note.

OFFICIAL ANNOUNCEMENT BY THE A. M. A.—A special conference on Medical Education and Legislation will be held at the Congress Hotel (formerly the Auditorium Annex), Chicago, Monday, Tuesday and Wednesday, February 28, March 1 and 2, 1910, the session to begin at 10 o'clock Monday morning. On Monday the Council on Medical Education will hold its Sixth Annual Conference. A report will be presented showing the present status of the medical colleges in the United States. Other important topics bearing on medical education will be discussed. On Tuesday there will be a Joint Conference on Medical Education and Medical Legislation, at which the essentials of a model medical practice act will be considered. On Wednesday the Committee on Medical Legislation will hold its Annual Conference, discussing a National Bureau of Health, vital statistics, pure food and drugs, expert testimony, and other live topics. All are most cordially invited to attend this conference and to participate in the discussions.

MEETING OF THE PATHOLOGICAL SOCIETY.—The first regular monthly meeting of the Pathological Society recently organized at Tulane was held in the Richardson Memorial, Tulane Campus, on Tuesday, January 18, 1910, at 8:30 p. m. The following program was followed: Note upon the Life Cycle of *Strangyloides Intestinalis* (demonstration of microscopic specimens), by Dr. J. G.

Gage; *Balantidium Coli* Infection, report of a fatal case (demonstration of microscopic specimens), by Dr. Geo. S. Bel and Dr. M. Ccuret; Tumors of the Parotid Gland, with report of a case (demonstration of microscopic sections), by Dr. R. Matas and Dr. C. W. Duval; Primary Hodgkin's Disease (Dorothy Reed type) of the Spleen, with Metastasis to the Liver (demonstration of gross and microscopic specimens), by Dr. C. W. Duval.

CLIPPINGS.—At the last meeting of the Texas State Board of Medical Examiners there were 32 applicants and only one failed.

The death rate of New Orleans for 1909 was lower than it has ever been.

Shreveport's death rate last year was 12.1 per cent. There was a decrease in the white death rate, but an increase in the negro death rate.

The Advisory Board of the Pennsylvania State Department of Health decided to put hook-worm disease, pellagra, and infantile paralysis on the list of diseases to be reported to the health authorities by physicians.

PERSONALS.—Our highly esteemed confrère and collaborator, Dr. Arthur W. DeRoaldes, has again received a high honor from a foreign government. Already a Commander in the French Legion of Honor, he has recently received from the King of Italy the decoration of Chevalier of Sts. Maurice and Lazarus, one of the oldest of the orders of the world. This title is bestowed only after many years of work or accomplishments in the line of public benefaction of some kind, and there are a few holders thereof in this country. We extend congratulations to Dr. DeRoaldes on this additional distinction.

Dr. Samuel R. Olliphant, former President of the Louisiana State Board of Health, who has been established in New York City for the past few years, with a home in Mt. Vernon, a place of some 30,000 inhabitants and about thirty minutes' distant on the New York and New Haven Railroad, has recently been elected President of the Municipal Board of Health of Mt. Vernon under a reform administration with a Democratic Mayor. Dr. Olliphant's many friends here will be glad to learn of this merited compliment.

Drs. H. P. Jones, J. B. Guthrie, Gustave Mann, attended a conference on pure food at Washington, D. C., last month.

Drs. Geo. Dock, B. A. Ledbetter, Sidney D. Porter and C. C. Bass attended the conference on Hook-Worm at Atlanta, January 18-20.

Dr. and Mrs. J. J. Castellanos celebrated their golden anniversary recently, and were the recipients of many handsome presents.

Gov. Noel has appointed Dr. Nolan Stewart superintendent of the Mississippi Insane Hospital at Jackson, to succeed Dr. T. J. Mitchell, who has held the office for the last thirty years.

Drs. Dowling, Lloyd and Callaway gave a dinner at the Charity Hospital on the fourth of January to meet the members of the Shreveport Medical Society.

Dr. Isadore Dyer, co-editor of the JOURNAL, who met last month with a painful accident affecting one eye, has now fully recovered.

VISITING DOCTORS TO NEW ORLEANS DURING THE PAST MONTH.—Dr. F. A. Scratchley of New York; Dr. J. S. Stephens, Natchitoches, La.; Dr. C. H. Irion, Benton, La.; Dr. Ernest Laplace, of Philadelphia; Dr. R. L. Randolph, Alexandria, La.; Dr. Henry R. Stiles, Major U. S. A., of Washington, D. C.; Prof. Dukes, of Oakland, Cal.

REMOVALS.—Dr. L. A. Cockfield, from Wapanucka, Okla., to Montgomery, La.; Dr. E. H. Payne, from Taylor, La., to Winfield.

MARRIED.—On Dec. 11, 1909, Dr. Geo. A. MacDiarmid to Miss Ada Martin. Both of this city.

On Dec. 23, 1910, Dr. Andrew J. Tullos, of Raleigh, Miss., to Miss Annie D. Cooper.

On Dec. 24, 1909, Dr. Roscoe Carter, of Caddo Parish, to Miss Pauline Roach, of Mansfield, La.

On Jan. 15, 1910, Dr. Walter Tusson to Miss Lydia Sarpy. Both of this city.

DIED.—On Dec. 29, 1909, at Lafayette, La., Dr. G. W. Scranton, at the age of 60 years.

On Dec. 29, 1909, at Asheville, N. C., Dr. J. A. Burroughs. Dr. Burroughs was one of the best known physicians in the South on the treatment of tuberculosis.

On Dec. 15, 1909, at Stevens Point, Wis., Dr. F. H. Watson, formerly of New Orleans. Previous to a general breaking down

of his health Dr. Watson was one of the most promising physicians of New Orleans.

Dr. Ferdinand Charles Valentine died in December, 1909. Dr. Valentine was one of the ablest Genito-Urinary practitioners, and a writer and teacher of note. He had many friends in this city who will regret his demise.

On Jan. 10, 1910, at Braxton, Miss., Dr. C. R. Norman, one of the oldest physicians of the community, at the age of 83.

On Jan. 10, 1910, Mr. Etienne J. Marion, of New Orleans, one of the most worthy and highly esteemed pharmacists of the city.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

A Handbook of Medical Diagnosis, by J. C. WILSON, A. M., M. D. Philadelphia, J. B. Lippincott Company, 1909.

The book is divided into four parts: I. Medical Diagnosis in General. II. The Methods and Their Immediate Results. III. Symptoms and Signs. IV. The Clinical Applications. There are 408 text illustrations and fourteen full-page plates.

The work is the outcome of a long and rich experience by one whose position as a teacher and clinician entitles him to speak with authority on many phases of clinical phenomena.

The book occupies a middle ground between works on diagnosis and those on the practice of medicine. It may be regretted by some that Dr. Wilson did not carry his work a step further and give us a complete work on the practice of medicine, while still adhering to the scheme of the present volume.

The work is unique in some respects and we hope the success for it which it deserves. The book-making is all that can be desired.

STORCK.

Immunity and Specific Therapy, by W. D'ESTE EMERY, M. D., B. Sc. (Lond.). Illustrated. Paul B. Holber, New York.

No work has ever been presented to the medical profession with more merit than this. From the academic and practical sides the subject is attacked vigorously, and each phase of the theory of immunity is discussed by one who knows. Toxins and their antagonists, with the evolution of our present knowledge concerning them, are ably reviewed. Immunity, phagocytosis, reactions and agglutinins each are exhaustively

handled, and wherever an illustration may count it is employed to elucidate the text.

The pages devoted to specific therapy not only cover the theories, but also indicate the advances made in diseases to which this modern method of therapeutics applies.

Altogether a book which has originality and purpose in the composition, and which should be a glorious educator to the physician or student in or out of the laboratory.

DYER.

The Practical Medicine Series. Series 1909. Chicago, The Year-Book Publishers. Under the general editorial charge of GUSTAVUS P. HEAD, M. D. Volume VI. *General Medicine*, edited by FRANK BILLINGS, M. S., M. D., and JOHN H. SALISBURY.

As is well known, the object of this series is to present the gist of the best in periodical medical literature. It is our conviction that works of this character have been of much benefit to the practitioner, allowing him to keep informed on many phases of medical progress.

We take the liberty of quoting from the abstract contained therein of A. Frouin's article (*La Presse Med.*, December, 1908), "Resistance of the Stomach to Auto-Digestion in Relation to Ulcer."

Frouin has performed some interesting experiments to solve the question why the stomach does not digest itself. The answers have been mainly three: 1. The stomach empties itself, and its secretion is intermittent; 2. The mucus and epithelium protect it against the action of the gastric juice; 3. The alkalinity of the blood serves to neutralize the acid of the juice.

"Frouin experimented by detaching the stomach from its connection with the esophagus and duodenum much in the manner of Pawlow, and retained in its secretion and the products of digestion for varying periods of time.

The author draws the following practical conclusions:

1. By varying the amount of salt introduced with the food, the gastric juice, with hypersecretion, can be qualitatively and quantitatively modified.
2. Incomplete evacuation or permanent stagnation of the gastric juice with hypersecretion has provoked an almost total autodigestion of the mucosa.
3. Hypersecretion provoked and continued for eight or ten days produces gastric hemorrhage if the juice secreted is left in contact with the mucosa.
4. The introduction and contact for twenty-four hours or thirty-six hours of products of the digestion of albuminoids also determine gastric hemorrhages.
5. One ought, therefore, in case of surgical operations, especially where there is hyperchlorhydria, to secure a complete evacuation of the stomach."

We notice a few typographical errors in the book. The volume gives in abstract form the advances made in medicine during the year.

STORCK.

A Text-Book of Physiological Chemistry for Students of Medicine. By JOHN H. LONG, M. S., Sc. D. Second edition revised. Philadelphia, P. Blakiston's Son & Co., 1909.

The plan of the work presupposes on the part of the student a knowledge of the elements of general inorganic and organic chemistry.

To the beginner in physiological chemistry the book will be found a convenient guide, presenting in brief form the important principles of physiological chemistry.

The experiments given in the text are sufficiently numerous and comprehensive to serve the purpose of a laboratory course parallel with the general course.

We anticipate for the second the same success accorded to the first edition.

STORCK.

Publications Received.

C. V. MOSBY COMPANY, St. Louis, 1909.

The Prevention and Treatment of Abortion, by Frederick J. Taussig, A. B., M. D.

THE YEAR-BOOK PUBLISHERS, Chicago, 1909.

Practical Medicine Series: Vol. X. *Nervous and Mental Diseases*. Under the general editorial charge of Gustavus P. Head, M. D.

J. B. LIPPINCOTT & CO., Philadelphia and London, 1910.

International Clinics. Vol. XV, Nineteenth Series.

D. APPLETON & CO., New York and London, 1910.

A Practical Treatise on Ophthalmology, by L. Webster Fox, M. D., LL. D.

Modern Clinical Medicine—Diseases of Children, by Abraham Jacobi, M. D., LL. D.

A. WESSELS, New York, 1909.

Vital Economy, or How to Conserve Your Strength, by Jno. H. Clarke, M. D.

MISCELLANEOUS.

Visiting Nurses in the United States, by Ysabella Waters. (New York Charities Publishing Co., 1909.)

Hygienic Laboratory—Bulletin No. 52. Report No. 3 on the *Origin and Prevalence of Typhoid Fever in the District of Columbia* (1908), by M. J. Rosenan, L. L. Lumsden and Jos. H. Kastle. (Washington, Government Printing Office.)

Physicians' Pocket Account Book, and Practical Advice for Professional Success, by J. J. Taylor, M. D. (Medical Council, Philadelphia, 1909.)

Treasures of Truth, by George F. Butler. (S. DeWitt Clough Publishing Co., Chicago.)

Twelfth International Congress on Alcoholism. London, July, 1909. (Published by the International Reform Bureau, Washington, D. C.)

New Year's Bulletin of the International Reform Bureau. Rev. Wilbur F. Crafts, Ph. D., Superintendent, Washington, D. C.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR DECEMBER, 1909.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	6	4	10
Intermittent Fever (Malarial Cachexia) ..	2	1	3
Smallpox.....			
Measles	1		1
Scarlet Fever.....			
Whooping Cough.....			
Diphtheria and Croup.....	2		2
Influenza	6	3	9
Cholera Nostras.....			
Pyemia and Septicemia	3	1	4
Tuberculosis.....	32	31	63
Cancer.....	24	5	29
Rheumatism and Gout	1		1
Diabetes	2		2
Alcoholism	2	1	3
Encephalitis and Meningitis.....	5	3	8
Locomotor Ataxia.....	2	1	3
Congestion, Hemorrhage and Softening of Brain.....	19	10	29
Paralysis	5	3	8
Convulsions of Infants	1	2	3
Other Diseases of Infancy	15	14	29
Tetanus.....		3	3
Other Nervous Diseases	1	1	2
Heart Diseases.....	76	37	113
Bronchitis	3	7	10
Pneumonia and Broncho-Pneumonia.....	30	30	60
Other Respiratory Diseases.....	2	7	9
Ulcer of Stomach.....	2		2
Other Diseases of the Stomach	10	3	13
Diarrhea, Dysentery and Enteritis.....	39	12	51
Hernia, Intestinal Obstruction.....	3	2	5
Cirrhosis of Liver.....	6	1	7
Other Diseases of the Liver	4	2	6
Simple Peritonitis	3		3
Appendicitis.....	3	1	4
Bright's Disease	31	18	49
Other Genito-Urinary Diseases.....	4	4	8
Puerperal Diseases	6	1	7
Senile Debility.....	14	5	19
Suicide	4	2	6
Injuries.....	23	14	37
All Other Causes.....	32	3	35
TOTAL.....	424	232	656

Still-born Children—White, 8; colored, 19; total, 27.

Population of City (estimated)—White, 265,000; colored, 97,000; total, 362,000.

Death Rate per 1000 per annum for Month—White, 19.20; colored, 28.70; total, 12.74.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.11
Mean temperature 50.
Total precipitation 7.40 inches.
Prevailing direction of wind, north.

New Orleans Medical and Surgical Journal.

VOL. LXII.

MARCH, 1910.

No. 9

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Impetigo—Its Nature and Complications.

By A. J. DELCOURT, M. D., Houma, La.

In the last two years there has appeared in our midst a remarkable and continuous outbreak of impetiginous affections among children and early adults. It occurred generally under the form of more or less discrete and sporadic cases, forming in some places more localized foci, according to the variable density of the population of the infected area and the chances of contagion. It showed in its progress and dissemination the manifest result of contagiousness, from the existence of numerous cases of the affection in the public schools and in the same families, and from the appearance of house-to-house outbreaks. The occurrence of some cases of a particular form and gravity, quite out of keeping with that which obtains usually in this dermatopathy, will serve me as an excuse for relating somewhat in detail the clinical aspect of those cases and for dwelling at some length on the characteristic features of the impetigo. There was a time, not so very far distant, when

impetigo had to fight for its very existence—that is to say, for its autonomy. As an outcast in the field of dermatology, it had to plead for its identity, being at one time assimilated to, and, as it were, absorbed by eczema; at another time it was made the satellite and the representative of various diatheses and dyscrasias, whose livery it was assumed to wear. Like a plant growing on different grounds and under variable conditions, it was made to borrow from them some peculiar traits, some kinds of family features, recognizable through the versatile mimicry and the variety of their cutaneous manifestations. As a theory, this proved picturesque and fascinating, if only somewhat fanciful, although not devoid of some part of truth, as we shall see later on. Unfortunately, such conception was the fruit of a period in Dermatology when we had not yet learned to differentiate the primary lesions, which are the notes of a particular disease, from the lesions resulting from secondary causes, superposed, as it were, on primary lesions, and sometimes even originating them, such as those injuries arising from scratching, from rubbing with some medicament, as well as those lesions produced by pyogenic microorganism, which, as is especially the case with impetigo, are the most prolific cause in the production, the propagation and the exacerbation of this dermatopathy.

Among the numerous cases it was given me to observe, the most part, of course, were of the common form and evolution, but some of them presented such a degree of real gravity as to contrast with the character of relative benignity and innocuousness usually ascribed to that cutaneous affection.

Sabouraud defines impetigo: “A contagious dermatosis, spontaneously and experimentally inoculable.” Or, as W. A. Pusey says: “Impetigo is auto and hetero-inoculable.” Both definitions give impetigo its most salient features.

The elementary lesion of impetigo is a superficial vesicle, which very early breaks up. Theoretically, there is at the very beginning a short period in which the vesicular liquid would appear clear, but practically, when seen by the physician, the liquid is already sero-purulent, by opposition to varicella, in which the liquid of the vesicles remains long clear and limpid. Soon after, those vesicles become pustular, and sometimes they appear as pustular from the beginning. So, on the surface of erythematous spots, around the chin (their election spot), on the forehead, on the nose, on the

scalp and on some varied parts of the body, there appear some small, acuminate, discrete or confluent pustules, their size varying between a split pea and a lentil, and sometimes larger, or again being intermediate between varicella and pemphigus in size.

Those epidermic pustules are pustulo-vesicles, or at times pustulo-bullæ (*vesicula quæ pus fert, est pustula*), and result from the cleavage of the horny layer over the granular layer, leaving intact the generative layer of the epidermis; whereas in the dermic pustules we have the destruction of the generative layer or papular ground, with their consequent scars, as in variola and some varieties of acne. Those impetiginous pustules have only an ephemeral existence. After a few hours they break down, secreting some kind of a yellowish, thick and somewhat phlegmonous liquid. On the spots occupied by the pustules there appear some superficial ulcerations which concrete into angular, purulent crusts, looking at times like concreted honey (*Melitagra flavescens* of Alibert), the coloration of which changes under the atmospheric conditions. A few days longer those crusts fall off, leaving in their places a red stain, which vanishes gradually.

In some cases of impetigo of the face the crop of confluent pustules is so thick that the whole face looks like a mass of festering crusts, of a black, dirty, scaly appearance, which has given to that form the well-deserved name of *Impetigo larvalis*. Such is, in its more common and vulgar varieties, the cutaneous impetigo. But alongside with this, and either as an extension of the impetigo of the skin or else owing to some particular influence, we see the impetigo invading the mucous membranes, and causing, as a consequence, all sorts of lesions and complications, the gravity of which contrasts sharply with the cutaneous forms. So, on the commissure of the lips, on each side, we see a large ulceration covered by a gray, whitish layer. The patches on each side are one half on the skin of the lips, one half on the mucous side, and, under the name of *Perlèche*, that has been given them by Lemaire, of Limoges, prove very obstinate and perniciously contagious, especially among school children. Inside of the lips, on the edges of the tongue and on the palate some large patches of diptheroid membranes spread out. They are somewhat easy to remove, leaving a rosy, superficial ulceration. This form of impetiginous dermatitis spreads with a despairing facility, as we have said, among

school children, representing one of the most obstinate and pernicious forms of the disease. Its differentiation from diphtheritic membranes is not difficult, as the latter are thicker, more grayish, not so easy to remove, and because their localization is especially on or about the throat, tonsils, soft palate. Then we have the bacteriological test to clinch the diagnosis.

Before proceeding any farther in the description of the varied forms of impetigo, I would like to refer to some cases I have encountered, which will illustrate better than anything else could do the gravity of some forms of the disease.

I was called one day to see a small colored girl, 7 years old. She had been suffering, said the mother, for about two weeks previous with a breaking out of the face and scalp. At the time I saw her the impetigo on the face had almost dried up, but that on the scalp was still in full bloom, with its large patches of festering sores. On the body, especially on the buttocks and legs, some other patches of *impetigo sparsa* at different stages of development. But what most attracted my attention was a general anasarca, as intense as that of a Bright's disease case. On examination, the urine, scant and red, of a high specific gravity (1026), was albuminous to a high degree. There were some lumbar pains; temperature 101°; tongue furred and dry. The treatment of catarrhal nephritis was applied forthwith. In about 8 days the symptoms of nephritis had almost disappeared, but a few days after I was called in again. I found the little patient with a high fever, pains in the side, the respiration frequent and jerky. On examination, all the objective symptoms of a typical lobar pneumonia of the right side were easily noticeable; by the next day the left side was taken, too. On the 10th day from the onset the fever went down by lysis, and by the 12th day the temperature was normal. Here is a remarkable case of secondary infection, first of the kidneys and then of the lungs, very likely of streptococcic nature. A few days ago I met with a similar case on a baby 9 months old, who on the 15th day of an impetigo was overtaken with a bronchial pneumonia. Another little girl white, 3 years old, of a very delicate constitution, having had some rachitic troubles when about 15 months old, was suffering with an impetigo of the face, which soon invaded the nose.

Intense and purulent coryza soon followed; then the eyelids were attacked with an acute blepharo-conjunctivitis that spread to the cornea, the result being a phlyctenular keratitis and an ulceration of the lower segment of the cornea. The photophobia was intense and the little patient was to be kept in a dark room for a long while. At one time the ulceration threatened the perforation of the cornea. The treatment at first was antiphlogistic, with antiseptic hot applications, atropine instillations, and later on with yellow oxide of hydrargyrum ointment. At last the period of reparation set in, but, as usual, it took several months for the lesions to heal up, with the consequent result of a leucoma, which, happily, located as it was on the lower segment of the cornea, will not interfere with the vision. Here, again, we have a series of secondary infections, of a gravity and of a tenacity that stamps the impetigo of the mucous membrane as a most serious trouble. I might adduce here numerous other cases, where the impetigo caused, in the way of secondary infections, some aural troubles, as well as acute and chronic nasal lesions. According to some authors, the impetiginous vulvitis is not such a rare occurrence, by any means, and someone even relates some vesical complications, attended with the evacuation of squamous and epithelial elements of the same impetiginous nature.

Now, it may be asked what cause, what general condition, underlies those grave, infectious, obstinate forms of impetigo which causes them to invade so many tissues of the system and which imparts to those lesions such tenacity as to make them resist the most appropriate and skilful treatment, and revives them from their ashes, so to say, when you would believe the trouble was at an end. In his otherwise laudable endeavors to rationalize Dermatology and to rescue it from the somewhat chaotic condition that was blocking up and hindering its progress, Hebra and, after him, the whole German school of dermatology, thought it absolutely necessary to rid it of what they considered as the superstition of dyscrasia, of diathesis, in a work of all constitutional or temperamental influences, which had been, up to that time, generally held as having such important a bearing on the behavior of cutaneous diseases. And so the yoke of diathesis and dyscrasia being shaken off, we

had to account and to look in some other way for the particularities and the special features of some cutaneous affections. Bacteriology has enabled us to solve, to our satisfaction, the important problems of the genesis, the propagation, the march and complications of some dermopathies, but it leaves untouched all the other agencies which exert such a remarkable influence on our pathologic and intimate reactions; those variable conditions of the soil which make it unfavorable or an easy prey to morbid impressions; those deep-seated idiosyncrasies, those personal equations, which control the destinies of most of our cutaneous diseases.

Happily, a reaction has taken place on this important point of general pathology and of pathogeny. Sabouraud, than whom no one has shed more clinical and bacteriological light on that much-vexed question, affirms, with the greatest emphasis, the role of the lymphatic constitution in the evolutions of those infectious forms of impetigo. According to Bourcy, scrofula is a trouble of nutrition, hereditary or acquired, little known in its essence, but very well known in its manifestations and determinations. It produces a special vulnerability under the most trifling circumstances and influences, as far as certain tissues are concerned. Hence the eczema, the furunculosis, the coryza, the hypertrophy of amygdalæ, and generally all forms of adenoid formations. None of those affections are really specific, but the ground on which they grow by preference is special, and this explains their distressing tenacity, their relapses and their chronicity. The lymphatic system is responsible for that chronic thickening of the tissues, the enlargement of the lymphatic glands around the neck, and this is especially what imparts to some individuals that scrofulous facies, so characteristic with some families.

Gaston, at the Congress of Pædiatry at Nantes, 1901, studying the connections between scrofula, lymphatism and struma, with tuberculosis syphilis and the infectious processes, classifies them under three types: The scrofulo-tuberculosis, characterized by the hypertrophy and the suppuration of the cervical glands (attenuated tuberculosis); the hereditary syphilis, on account of its ill-defined and versatile manifestations, seldom realizes the scrofulous type; but, by contrast, scrofula is well

represented by those so particular manifestations of infectious processes arising from staphylococci and streptococci.

According to Hax, scrofula would have nothing in common with tuberculosis and syphilis, but would result from cutaneous infections by staphylococci and streptococci, which may occur as well on strong, vigorous, as on weakly children, but are enhanced by lesions of the skin. We have purposely reported this long and commending array of authoritative statements in order to show that the trend of opinion is decidedly towards the acknowledged influence of special dyscrasias on the cutaneous affections and towards the action of prolonged infections on a specialized ground. Summing up those varied and yet concurring opinions, we may say that, of the old scrofula, one part belongs to the attenuated tuberculosis; another, less important, to hereditary syphilis, as, for instance, interstitial keratitis and some glandular affections of the neck; and, last but not least, one part, the most important, belongs to those banal infections by common pus organisms, kept up through particular conditions of the ground.

As to the pathogenic agents of impetigo, there is a great variety of opinions. Sabouraud considers the streptococcus as the culprit. Griffon, Balyer and Curt hold for the staphylococcus; Leroux claims the streptococcus as the habitual agent; for him, the staphylococcus derives from a secondary infection of the primary vesicles, during their short and exposed existence. This contention is the more likely, that we know the staphylococcus as the constant and habitual host of our skin, under normal conditions; we can, therefore, affirm the presence of staphylococcus after a certain time of existence of the impetiginous lesion. The streptococcus would seem to be the initial agent. As for the existence of a specific streptococcus, this has not been demonstrated, as it is by no means legitimate to conclude from the presence of a germ its etiologic function.

There is, furthermore, a restriction to be made as to the staphylococcic nature of some impetigos. It would appear that Halle and Guillenoy could not find any streptococci in a certain number of cases. Moreover, Sevestre and Gaston, both eminent authorities on the matter, have found almost constantly the staphylococcus in the impetiginous lesions of the mouth.

In conclusion, we find in impetigo and its complications the two ordinary agents of suppuration, streptococcus and staphylococcus, without any absolute possibility of differentiating the lesions produced by either one, and still less to clinically differentiate between different streptococcic lesions; those differentiations being, for the most part, matters of such nicety and, as a fact, of such difficult realization, that an allowance must be made as to their accuracy. To conclude this long inquiry, let us say that, by asserting that the streptococcus plays the more important role as a causative agent of impetigo and impetiginous manifestations, we shall have, we think, expressed the most common agreement among the leading dermatologists of all countries.

Resistant or Neglected Club Foot in Adolescence.

By Dr. J. D. BLOOM, New Orleans.

Of this condition certainly the methods of correction that obtain in the purely congenital or recently acquired varieties cannot well be considered.

The method of forcible manual correction first described and practiced by Delore is a procedure to be very seriously considered and, in truth, cautiously done. Mechanical rectification can be attempted far beyond the first year of life. The natural bony development, fascial and tendon hypertrophic and atrophic changes increase the tissue resistance to make more safe and effective measures indicated.

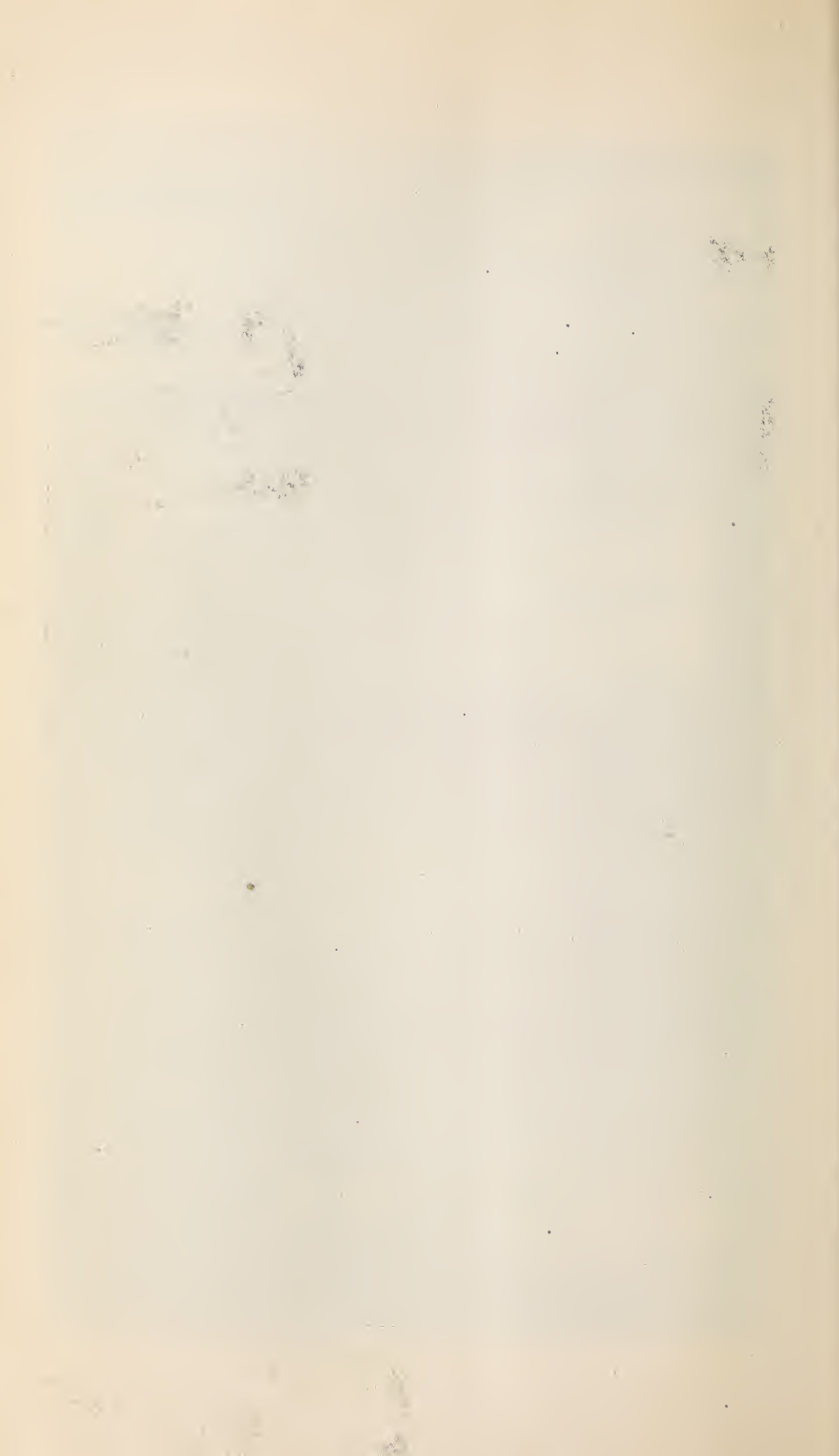
It has been demonstrated by Wolff that the internal structure of the bones correspond to their external contour and that both are adaptations to functional use; this form particularly of the internal structure is not a permanent one, and is transformed readily to form changes to the purpose of function.

This is a happy condition and lends great encouragement in the mere reversal of a turned or club foot with the expectation of a complete restoration of their shape, provided, of course, the use of the foot would be made to accord in the new position, and until a habitual function was established this should continue.

This may be considered as the secret for a return of the dis-



ILLUSTRATING DR. BLOOM'S ARTICLE.



torted bones to the normal, though the power is a natural one and pertains equally to the other resistant constituents of a foot so distorted.

As I previously said, there is a wide difference between the methods to be pursued in adolescence, childhood and infancy. It must be considered that in infancy the foot has no function and at a later period it is weight bearing and its lines are influenced by this function; this must be considered very cogently in the effort of correcting an otherwise distorted foot; it is a point in favor of a rapid correction. Over-correction must always be aimed at, and no procedure, however radical, can be considered by itself. The primary over-correction is the first essential.

The beauty of the Lorenz method of forcible correction has an advantage over the method in ordinary use in that the entire foot participates in the correction instead of a limited portion, as by cuneiform osteotomy or bone removal; then, too, its immediate use adds to the fixed benefit of the procedure against the required rest in other operations.

All this makes this operation one of choice where possible, and the mere effort one of benefit preliminary to other procedures. It must be borne in mind that the Lorenz operation represents actual labor and a work that is exhausting.

Malleotomy is very efficiently replaced by the Lorenz procedure, and as one of the chief causes of hindrance to a perfect result otherwise adds to the attractiveness of this procedure.

Correction that is decidedly forcible in its doing, such as is accomplished by wrenches and osteoclats of the design of Thomas and Phelps, are devoid of the previous danger of sepsis, which we offset by the present-day preparation.

The Lorenz procedure should be followed, as the author practiced, by muscle massage and other revivifying expedients with locomotion. In the resistant cases open incisions, extreme force and tarsal osteotomy have been used. With the present-day asepsis there should be no objection to the open incision, tenotomy or even osteotomy, speaking in the abstract, but it must be considered that the manipulative efforts have an effect to overstretch the skin, and that it be dry and unbroken is far to be preferred.

In the case pictured a boy between the age of 14 and 16 years came to me with well-marked heel pads existing below the outer malleoli. His walk was singularly typical of the "Reel" foot, and the attending atrophy of his extensors and peroneal muscles, as shown in the photo, were marked.

A course of operative and manipulative treatment attended by periods of rest that aided in recovery of a local tone (one of the operative efforts involved an astragaloid osteotomy), with over-correction. The weight-bearing effect toward a recovery of bony form gave after a treatment of about twenty months to two years, the result as pictured in the accompanying photographs, in which a diminished proportioned bone size to stature and age, muscular development, existed.

Compositely the foot speaks for an improvement in appearance, happy in effect, that meant functional benefit of both the feet and a future that with some attention insured a life of manly service.

The photographs, five in number, in themselves tell the stages of repositional results and cure.

Some Blood Findings in Twenty Cases of Pellagra in the Insane Asylum of the State of Louisiana.

By Dr HENRY DASPIT,

Recent Assistant Physician Insane Asylum of the State of Louisiana.

In reporting the following observations on twenty cases of Pellagra, there is no intention to add to the already extensive literature of the subject, but rather to record some blood findings that may prove of interest. The cases observed occurred in the Insane Asylum of the State of Louisiana between July 1 and November 1, 1909.

All but one developed the erythema after interdiction, and I have every reason to believe that with this exception they were observed at the time of the first attack. Classified as to sex and race, they are as follows:

White females, 15; colored females, 1; white males, 4. On two of the white female cases there was no blood work done.

It may be of interest to note that fourteen of the white female cases developed in one ward and presented the ery-

TABLE—DR. DASPIT'S ARTICLE.

NAME.	SEX AND RACE.	AGE.	PSYCHOSIS.	TIME IN ASY- LUM BEFORE PELLAGROUS	HAEMOGLOBIN	RED BLOOD CELLS.	WHITE BLOOD CELLS.	DIFFERENTIAL COUNTS.						LOCATION OF ERYTHEMA.
								S. L.	L. L.	Tr.	POLY.	Eo.	Bas.	
L. N.	C. F.	65	Pellagrous Insanity	On Admit.	25	1,632,000	4,000	38	2	-----	60	-----	-----	-----
Mrs. Cot	W. F.	39	Dem. Praecox	5 yr. 10 mo.	85	1,600,000	4,500	40	1	I	58	-----	-----	Dorsum of Feet and Hands, Face, Pudendum
Mrs. Cr.	W. F.	43	Acute Mania	18 yr. 7 mo.	90	4,800,000	9,500	28.5	19	-----	50.5	1.5	.5	" " Hands.
M. E.	W. F.	24	Epileptic Ins.	10 yr. 6 mo.	No	5,700,000	5,000	26	9.5	-----	55	7.5	1	" " "
M. J.	W. F.	36	Acute Mania	14 yr. 4 mo.	85	blood work	done	-----	-----	-----	-----	-----	-----	" " "
M. Mal	W. F.	58	Dem. Praecox	3 yr. 9 mo.	100	4,400,000	5,200	19.5	10	-----	78	2.5	-----	" " " Slight on Feet.
K. R.	W. F.	43	Melancholia	6 yr. 10 mo.	90	9,000,000	5,000	24	13	-----	62	1	-----	" " " and Feet, 2d Exacerbation
I. S.	W. F.	38	Chr. Mania	14 yr. 4 mo.	80	5,000,000	4,500	17	2.5	-----	80	-----	.5	" " " Face.
J. R.	W. M.	57	Genl. Paresis	4 yr. 9 mo.	85	4,500,000	3,800	10	10	-----	75	-----	1	" " " Bald Tongue.
J. H.	W. M.	49	Acute Mania	8 yr. 4 mo.	90	4,000,000	4,000	27.5	9	.5	60	-----	2	" " " and Feet.
C. S.	W. F.	24	Paranoia	2 yr. 4 mo.	85	4,480,000	3,500	26	7.5	1	63	.5	-----	" " Feet.
D. S.	W. M.	40	Genl. Paresis	5 mo.	75	4,000,000	3,500	20	15	-----	64	1	-----	" " one Hand. Aggravated Stomatitis
Mrs. B.	W. F.	56	Dem. Praecox	6 yr. 11 mo.	85	3,760,000	2,800	19	2	-----	75.5	2.5	1	" " Hands and Feet.
L. M.	W. M.	42	Genl. Paresis	1 yr. 5 mo.	85	4,000,000	4,200	12	29	-----	57	1.5	.5	" " " " "
M. C.	W. F.	38	Chr. Mania	10 yr. 7 mo.	70	4,800,000	4,000	26	6	1	56	1	-----	" " " " "
JMF.	W. F.	29	Chr. Mania	10 yr. 2 mo.	95	3,360,000	3,800	38.5	6	-----	54.5	1	-----	" " " " "
I. T.	W. F.	39	Paranoia	3 yr. 1 mo.	95	4,800,000	4,000	39	4	-----	50	7	-----	" " Feet (No ova uncinaria in feces)
Mrs. D.	W. F.	34	Man. Dep. Ins.	3 yr. 8 mo.	80	5,000,000	5,000	38	6	-----	65.5	.5	-----	" " Hands
M. B.	W. F.	37	Chr. Mania	16 yr. 1 mo.	80	4,500,000	3,500	19	7	-----	74	2	-----	" " Feet
Mrs. S.	W. F.	39	Exhaustion Psycho	3 yr. -----	No	4,500,000	4,800	25	4	-----	65	3	3	" " Hands and Feet
Averages 40.				Less than 8 years.	88	4,712,777	5,550		9.3		63.7	2.3	1.1	

(Tr. Transition Forms. Eo. Eosinophiles. Bas. Basophiles.)
(S. L. Small Lymphocytes. L. L. Large Lymphocytes.)

thema within the short period of one month. With the exception of one case that presented a suspicious skin condition the summer previous, there was no thought that these patients were pellagrous until the disease was well defined. They had been in the institution from two to eighteen years and at all times under close scrutiny. The erythema was noted only after they had been removed from a shaded section of the recreation ground and caused to remain in the direct sunlight during the afternoon hours. A similar notation may be made of the white male cases. The effect of the solar actinic rays is prettily demonstrated in the case of a white female (C. S.), who constantly held her right hand within her shirt waist and allowed the other member to be exposed. The right hand was entirely clear of any lesion, while the other presented the typical picture. Also over the sternal notch, where the dress was worn open, there was a triangular area of erythema.

The blood picture in these cases is fairly constant and deviates but little from the normal. There is a slight falling off in the total leucocytes and a relative lymphocytosis, more marked in the small mono-nuclears. The hemoglobin is consistently good and red blood count shows nothing abnormal. These findings may be said to be comparatively negative and to offer nothing of value from a diagnostic standpoint.

The findings in detail, with the general averages, are presented in the table insert.

Poverty in Relation to Disease.*

By HOWARD D. KING, M D., New Orleans, La.

I venture to assert that everyone here tonight, be he of whatever creed or sect, or, for that matter, of none at all, has at some time or another heard or read that adjuration, centuries old, of the Nazarene, "For ye have the poor with you always." This ancient key-note, ever new, is used again tonight, for it seems always to be fresh; but I shall limit myself with respect to the phase of its particular and pertinent significance to the practice of medicine. Poverty in its broadest sense is meas-

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ured only by the boundaries of the world, but the limitations of this paper are, by necessity, sharply defined and will be adhered to with strictness. Indeed, I set these restrictions in advance, for, frankly speaking, the subject in its other and, perhaps, equally interesting phases tempt one to wander far afield.

That poverty has an important bearing on disease production is a fact that admits of no argument—it is a question of vital import, not only from the standpoint of the humanitarian and the social economist, but also from that of the medical man. As previously stated, this discussion will be narrowed to the last feature and will not embrace the causes leading to poverty, such as overpopulation, unequal distribution of wealth, enforced idleness, scant wages and like social evils. Morbidity and mortality increases in a direct ratio as we descend the social scale. Out of every 100,000 “well-to-do” people 100 die yearly; of an equal number of moderately prosperous wage-earners, 150 fail to survive; while of those in poverty 350 die. The staggering proportion of one-fifth of the infants of the poor dying annually, with only one in twenty of those born in better circumstances passing away, is the first feature to be considered.

These deaths cannot, of course, be attributed directly to poverty, but to the resultant effects which may be embraced under two general heads: Defective make-up, physical and mental, and ultimate degeneration. While some may quarrel with the exactness of these figures, I believe that they are for our purpose substantially correct.

Poverty exerts its most dire effects on the child, who, in the struggle for existence, becomes only a unit. The condition of the surviving children of poverty is much more pitiable than if they had succumbed to an early death. Generally speaking, it is found that the children are the greatest sufferers in the poverty-stricken class, and in many instances are, unconsciously, sacrificed to keep the wage earner, whether it be father or mother, in condition for the daily struggle. The survival of the fittest, therefore, resolves itself into the primitive power of physical resistance, and I shall endeavor to show how this power may be lowered through poverty. The in-

fluence of poverty is never relaxed—the children of poverty have as their heritage the deficiencies and weaknessss of both parents.

It would appear to be elementary that by far the greatest drawback to the child reared in poverty is the lack of proper nourishment for the maintenance of bodily health. Nowhere is this more emphasized than in the beginning of life, when many mothers are unable to furnish that all life-sustaining food—milk. Defective lactation and inability to breast-feed the infant is the first and greatest disadvantage with which the child has to contend in the struggle for existence. Through economic and political developments, many changes have been wrought in our social system—none more notable than the great number of females, single and married, who are pursuing vocations formerly engaged in only by men. This has reference, not to skilled or clerical labor, but largely to factory and mill operatives. That women in the conditions to which modern industrial life place them are suffering an appalling increase in nervous diseases, that they are more and more liable to infectious diseases, that they are less and less able to resist temptations to immorality and intemperance, that incapacity to work is coming on them earlier, that increasing numbers are suffering strains which are irreparable, and that as a result of all this they are bringing into the world children puny in mind and body. The vicissitudes, deprivations and hardships, the strain and trial of twentieth century life, coupled with the keenest competition, impose upon the female worker a task she is unable to bear and yet be physically fitted for the duties of motherhood. The female worker, through circumstances over which she has no control, generally eats a cold lunch of scant proportions, the major portion of which is usually tinned or pickled foods. Her more fortunate male co-worker, as a rule, through the foresight of the corner saloon keeper, enjoys a hot meal. Is it any wonder that the female factory or mill employee is pale, sallow and anemic. In consequence, she frequently becomes a physical wreck, her vitality and physical energy being sapped to such an extent that she is disqualified for the performances of those functions which by the laws of nature it is conceded are part of a mother's duty.

The woman who daily labors in a factory, mill or sweat shop is, at the close of the working day, in no condition to nurse a child. The average weight of children whose mothers have worked hard throughout pregnancy is lower than that of mothers who have been able to rest, even though it be only for a month or two prior to confinement. The child left alone and away from maternal influence is seldom properly cared for. The extensive employment of mothers in factories and mills is always attended by a high infant mortality. While I have no statistical evidence to prove this last statement, I hardly think it will be refuted. Personal hygiene and dietetics of the young, when neglected, become most potent factors in the production of infant mortality. It is apparent that at no period is more careful feeding required than during the first year of the infant's life. Normal alimentation is of the utmost importance, and for this period, at any rate, breast feeding should be insisted upon. Every mother who is able should nurse her child—this is what Nature intended, and who shall say that Nature errs? But how many mothers working in mills, factories and sweatshops are able to assume these duties? Few indeed.

Two-thirds of the deaths of infants under one year of age are traceable to intestinal diseases, caused by improper diet. The mortality of breast-fed infants is very small, though all of this class do not thrive. There may be several causes for this on the part of the mother; that is to say, from ill health, the breast and nipples may be affected, the milk supply may be impoverished, and, in some cases, the milk may be found to disagree with the infant. The mode of life of the lower classes of working women and their mental state, the latter due to various causes, may often so affect the milk as to render it unfit for the use of the child. Nursing should be forbidden under certain conditions, especially when the mother is very weak physically or suffering from a grave constitutional disease, say phthisis. It should be written in large letters that a phthisical mother should never nurse. If a mother is unable to exclusively nourish her child, she should continue to do so as much as possible, is advice frequently given. This idea has its limitations, and we should weigh it carefully

before urging it upon the exhausted female worker. At wet nurses are obtainable only by the rich, I shall dismiss at once this method of relieving the situation.

We are aware that a well-nourished body can withstand the ravages of disease better than one which is improperly sustained. Why many of the children of the poorer classes do not advance at school is easily explained. Great numbers of the pupils of the public schools of the large cities begin their day's mental work supported by a very meagre breakfast, and in some instances without any. The child who goes to school with his hunger unsatisfied can not learn or advance as rapidly as the well-nourished student. Hunger lowers bodily resistance and slowly saps the child's vitality, retards osteoblastic progress and dental calcification, the last named condition being always followed by bad teeth, with its invariable sequel—imperfect digestion and gastric disturbances; while the former induces trophic changes and a rachitic constitution. Improper feeding also brings about albuminoid and fibroid degeneration of vital organs. One of the reasons that many children go to school hungry is not that they have no food, but that the morning appetite is destroyed by the unhygienic domiciliary surroundings. Who of us have not seen the careless mother, the dirty living quarters, close and illy ventilated, the irregular habits, the serving of heavy and coarse food in an unattractive and filthy manner, and the neglect of the morning ablutions? Is this not enough to destroy the appetite of any child? And these are actual conditions prevailing among the poor.

The infantile disorders of nutrition encountered most frequently in practice among the poor classes are acute inanition, malnutrition, marasmus, rickets and scurvy, and last, but not least, the ever present bowel disorders. The exact aetiological status of these conditions, more or less closely allied, is not definitely known; but it is agreed that the predisposing causes are malhygiene, in the congested districts of the larger municipalities, especially bad air, improper food and absence of sunlight. It is recognized that a combination of these influences can produce these diseases, but we cannot always predict with certainty the exact disease the malhygiene will be responsible

for. As regards scurvy, it is not as frequent in the poorer classes as we are sometimes led to believe. Malhygienic environment is not as potent a factor in the production of this disease as it is in the causation of rickets and marasmus. In an analysis of 379 cases of scurvy, eighty-seven per cent. was observed in private practice among the "well-to-do" element. The greatest number of rachitic infants is found among those deprived of breast milk, especially those whose diet is deficient in fat and proteids. In large cities, though the proportion of rickets is small in the breast-fed, its occurrence cannot be called rare. The pulmonopathies find in the rachitic child a most fertile soil, which, if the infant survives, leaves the little patient with a permanently weakened chest and respiratory organs—a continued invitation to tubercular infection.

Marasmus, it is well known, presents all the symptoms of starvation. Indeed, it can be brought about in the infant by gradually withdrawing a portion of his daily food. The clinical phenomena, as well as the pathologic changes, are those of starvation. Many infants of the poor are marantic at birth, at which period they are undersized and display evidences of feebleness and malnutrition. This is frequently explained by ill health of the mother during gestation or by hereditary dyscrasia, in which syphilis, tuberculosis, alcoholism, gout, senility and exhausted vitality figure prominently. The usual history in these cases is that the infant was puny and weak since birth, and in the majority of instances bottle fed.

The various gastroenteric disorders seen among the children of the poor, mostly during the heated term, are so common that they need but passing comment at my hands. It is with diffidence that I touch upon this subject, because Dr. Duval, I am told, will soon favor this society with a paper entitled "The Etiology of Infantile Diarrhea."

Brain starvation in these young ones is evidenced by languor, malaise, poor memory, inapitude and loss of nervous energy. The children of the poor have many physical defects, nearly all remediable by proper medical interference, but which are neglected through the ignorance, fear and superstition which are the natural attendants of indigence. The

conditions referred particularly to are: (a) adenoids, (b) hypertrophied tonsils, (c) decayed teeth, (d) eye strain, (e) otopyorrhea, (f) adenia, of both luetic and tubercular types, (g) certain forms of hare-lip, (h) preputial adhesions and elongated foreskin. Chorea minor is seen most frequently in poorly nourished children of bad hygienic surroundings, or in those who have been subject to excitement, worry, overstrain from work, or the vitality of whom has been lowered through acute illness. Over-crowding, over-exertion and exposure seem to be predisposing factors in the causation of epidemic cerebro-spinal meningitis.

Some of the ills of the poor children are being relieved by certain municipal philanthropies, such as public play grounds, medical inspection of backward and unhealthy pupils, tenement house commissions, district nursing, child labor legislation, and breakfasts furnished hungry students before the opening of school, and also many private philanthropies of a most commendable type. That these measures for the preservation of the health of the indigent school children are fruitful of good results is assured, judging from the reports of the London, New York and Chicago public school boards.

The diseases which demand the greatest toll from the poor are tuberculosis, typhoid and infantile diarrhea. These conditions are indices of overcrowding. A great majority of the children of the poverty-stricken are born and reared in single and double-roomed houses, or in large tenements, where living conditions are unnatural and injurious. Over-crowding often exists in conjunction with general squalor and intemperance on the part of one or both parents. The question of housing the indigent is in importance next to that of feeding. Proper houses of the poverty-stricken would, in a wise, minimize some of the evils resulting from overcrowding.

We now approach the question of the child who is improperly and insufficiently clad. Disease in many of the poorer children is due to exposure; especially is this true during the cold season. Lowered temperature through lack of sufficient clothing renders the child particularly susceptible to certain pathological conditions as congestions, catarrhal affections of the mucous tracts, etc. For the maintenance of the normal

metabolism a uniform temperature is required. Deviation from this temperature is fraught with danger to the child in that it interferes with growth, so that instead of having a constructive metamorphosis we have actual retrogression. And all due to improper clothing.

Factory or mill life for the child or youth is harmful. It does not promote growth or development, and has a decidedly injurious effect on undersized and badly nourished young children. Many of the children working in factories or mills have not the physical strength for heavy manual labor, or, indeed, any task which demands prolonged efforts.

Unpopular health laws, affecting, as a rule, mainly the poor, are often with difficulty executed, and in many cases not at all. Thus ignorance and poverty set at naught the prophylactic crusade against disease as waged by our municipal health bodies. In this connection I refer especially to compulsory vaccination, the placarding of premises for certain contagious and infectious diseases, and other sanitary measures. There are many restraints to which the poor must necessarily be subjected for the common good or weal. If we were to operate on any other basis, our social system could not exist without danger to the balance of organized society.

One of the greatest evils following poverty is that those in such circumstances at first refrain from soliciting help. Soon this pride and shame vanish, and with it often disappears the last spark of ambition, and the victim is now content to live on the charity which he formerly despised. Those who refuse charity soon stray into the paths of crime, and in time many become habitual criminals unless happier circumstances intervene.

Does alcoholism lead to poverty, or vice versa, is a much-mooted question. What we do know is that one is usually the accompaniment of the other.

In this connection John Mitchell, ex-president of the United Mine Workers of America, and a prominent figure in the labor world, says: "Poverty has driven many a strong man to drink, and drink has driven many a strong man to poverty. Nothing has done more to bring misery upon innocent women and children than the money spent in drink by the poor."

John B. Lennon, treasurer of the American Federation of Labor, is led to remark: "Who could deny that the liquor traffic has driven women to work in factories, mills and sweat-shops who ought not to be there? The trade union movement is opposed to child labor, but who can deny that the liquor traffic is not driving into industrial life boys and girls who should be in the school or on the playgrounds."

Poverty, as we know, brings with it a host of attendant evils, not the least of which is the habit of making up for the lack of food by taking alcoholic stimulants and drugs, of the latter principally cocaine and morphia, which are cheaper, and, for the time being, more satisfying.

In a recent investigation of the conditions existing in the industrial centers of that community, conducted by the Pittsburgh Survey, it was found that in the regions where the low-paid workmen were housed the drink evil was at its worst and the general morality at its lowest. Health conditions were also dreadful. This state of affairs does not alone prevail in Pittsburgh, but is found in every large American city of today.

After a certain age many of the children of the poor have their physical welfare in their own hands, and this parental neglect or necessity, through other causes, of shifting for one's self leads to the formation of certain habits which seriously hamper the child in the race of life and also have deleterious effects on the human organism. Among the very young children of the poor smoking and drinking are due, in many instances, to parental example and surroundings. Many ignorant mothers believe that a drop of beer or a "weak toddy" or a nip of hot gin will prove of benefit to the baby, and in many cases are given to induce sleep, quiet the cough, or relieve the "dreadful colic." Interference with growth, especially among mill and factory populations, has been traced to this.

The majority of the unfortunates who go down through alcoholism and drug addiction end their days either in hospital wards or asylums. In a great number of cases renal and hepatic diseases bring the poor wretches quickly to their end. A frequent cause of death among the poor, notably in labor settlements, is the sudden and complete deprivation of alcohol

after a long debauch, as the poor wretches then sees things from which he tries to escape—a frightful phantasmagoria. It is delirium tremens, which ends in stupor, followed by death. Drug fiends do not come from the ranks of the poor as we know them—but, as a rule, are recruited from the degraded, poverty-stricken wretches of the underworld.

Poverty also exacts its tribute from the nervous system—through indigence the intellect becomes dulled, and thinking difficult. There is an inability to concentrate the attention for any definite length of time. The constant fear and dread of hunger loom up before the individual, and soon the nervous mechanism gives away, the unfortunate becoming either insane or committing suicide. Indigence added to poor and insufficient food, filth and vitiated environments, overcrowding and lack of hygiene are most potent causes in the production of insanity.

Many poverty-stricken females are infected with venereal diseases, not so often due to illicit intercourse as to infection from careless and ignorant mates, which makes of them chronic invalids. Again, the germs of such diseases are often received as heirlooms. While these diseases are not the cause of death, they prove very unfavorable complications with other diseases and tend to shorten the lives of the sufferers. Gonorrhea is prevalent among many of the poorer females, and is the cause of much of the sterility. Many of the young men in penurious circumstances are gonorrheics, and assuming, because the disease is in a quiescent stage, that they are cured, contract marriage, and it often occurs that the disease is transmitted to the wife, and the first pregnancy is followed by serious complications, causing thereafter sterility and illimitable gynecopathies. Then the child ushered into the world may have a purulent ophthalmia. Poverty prevents the obtaining of competent medical advice and, thus, we see the disastrous consequence. By reason of the struggle to maintain a large family, many mothers submit to criminal operations, which are generally performed by themselves, their companions or by unscrupulous midwives in a most crude manner, followed often by sepsis, in which death occurs. That poverty has a deterrent effect on birth rate is indisputable. This state-

ment will probably be denied, but, generally speaking, it is true. Fœtal deformities, commonly ascribed to maternal shocks, are in reality due to defective vitality arising from improper nourishment. The ovum has not sufficient strength to develop properly, and thus it is deflected from its proper course and its development checked. Gynæcologic complaints are a source of much suffering to the woman in reduced circumstances. Lack of intelligent and aseptic obstetrics is responsible for many ailments, and all due, as a rule, to ignorant midwives. It is my opinion that the ignorant midwife, and in many cases the well-trained, though unscrupulous midwife, practicing among the poor, is responsible for many gynæcological conditions. Neglected repair of lacerations, both cervical and perineal, is often held culpable for many of the reflex neuroses observed among the poor. Ophthalmia neonatorum (and tetanus neonatorum) are conditions preventable, but often noted in practice among the poor.

In the foregoing I have endeavored to state, in simple form, the results of my observations in my practice among the poor. The larger aspect of the entire problem, that is, the proposal along broad and comprehensive lines of measures for the alleviation of the conditions described I must pass over, the question being in its entirety too vast for treatment in this paper. No man or set of men, and no one race or government, alone can solve the great question of poverty. It has its legal, medical, political and moral features, if not, in fact, more than these, and for my part I have contented myself with an unadorned statement of conditions as they concern our own particular field—their relation to the duties of the medical profession. The subject in any of its phases is not new, but the future will doubtless see a larger and broader knowledge of the causes and effects of poverty. This knowledge will be the first step in the loss of the time-worn heritage of man. Possible discussion tonight by some of our able friends may cast a new light before us. If so, I shall be grateful for having had a share, however small, in the good work, which must go on, even until there shall be no sting in the words of Him who said "For ye have the poor with you always."

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DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. E. D. FENNER, of New Orleans, read a paper entitled:

Infantile Scurvy, with Report of Two Recent Cases.

In the last days of August, 1908, there was brought into one of my wards at the Charity Hospital an emaciated, anaemic baby of fifteen months, who had been an inmate of one of the asylums here in New Orleans. The trouble was "a swelling on the right thigh," which had existed for no one knew exactly how long and which had given the infant a great deal of pain. The child had been bottle fed upon condensed or malted milk. Its bowels were in very bad condition, its limbs wasted, its belly distended and its facial expression one of severe suffering. The appearance was that of wasting, and not at all that of rickets, in which it is much more common to find a pretty good deposit of fat. There were eight teeth through the gums, and the mucous membrane did not show any purplish or hemorrhagic tinge. The head was not noticeably square, and although the ribs were slightly beaded the rickety rosary was not pronounced, nor were the ends of the long bones enlarged.

Upon the right femur, however, was to be seen and felt a tumor-like enlargement, extending from the knee almost to the groin. The overlying skin was not discolored, but was marked by large veins and the tumor was exceedingly tender, very painful and gave a sensation of distinct fluctuation. The opposite limb did not appear to be involved at all. On the day of admission one of the house surgeons explored the tumor with the aspirating needle in a search for pus. Nothing was withdrawn but a quantity of bloody serum. The next day I saw the patient and made a choice of three possible diagnoses. 1. Abscess, which was excluded by the aspiration which had been made the day before and which I repeated with a similar result. 2. Scurvy, which I was inclined to exclude on account

of the condition of the gums, the absence of trouble in the other limb, in the presence of so large a tumor on the right femur. 3. Sarcoma, which I feared was the real condition, although it seemed strange that there should be so much pain and tenderness if it were sarcoma. A skyagraph taken a few days later was reported by the X-ray department to indicate sarcoma, but to this I shall refer again a little later.

It appeared that if the mass was a sarcoma the only measure which offered any hope of relief was an amputation, and this seemed indeed a forlorn hope in the wretched condition in which the little one lay. If the case was one of scurvy the therapeutic test would surely give us light in a short time, and it was therefore decided to administer orange juice, while at the same time every effort was being made to improve the child's general vitality.

Within a week there appeared to be some improvement, the tenderness was certainly less severe, and the tumor seemed a little smaller. Slowly, but surely, the pain disappeared, and the tumor mass diminished in size, and although many weeks were required, under the charge of my confrere, Dr. Borey, to relieve the diarrhea and restore the infant's nutrition, it was finally discharged about the first week in January, 1909, in pretty good condition.

Case 2 was a private patient of my own, to whom I was called on account of a severe grip pneumonia. The baby was about a year old, and had been fed exclusively upon malted milk, its parents having a great dread of cow's milk in any form. It presented, however, no distinct evidences of rickets and had been a very healthy baby until the onset of the attack of grip, for which I was called on Oct. 16, 1908. For about a week before my visit it had been under the care of another physician, who turned the case over to me.

The child was fairly well nourished, although a little sallow in color. The respirations were rapid, the temperature elevated, but not excessively high, and there were all the physical signs of a well-developed grip pneumonia. The case progressed without any particularly alarming symptoms and with a rather moderate temperature range, the child took its nourishment greedily and the digestion remained excellent. At the height

of the attack, however, I noticed that the little one became very irritable, fretting a great deal, screaming out whenever it was moved and exhibiting a most remarkable restlessness by waving its hands up and down for an hour at a time. Examination of the gums revealed a typical almost black swelling of the gums, which bled easily. I at once recognized that I had here an intercurrent scurvy, and ordered two teaspoonfuls of orange juice every three hours. Within twenty-four hours the fretfulness and tenderness which had been detected in the limbs had disappeared, and within forty-eight hours the gums were almost normal in color and firmness. The baby made an otherwise uneventful recovery from the pneumonia, and as soon as convalescence was established the food was changed to cow's milk, and the fruit juice made a regular element in its diet. These two cases have seemed to me worth reporting, for the reason that the first shows how even one like myself, who is known to be constantly on the lookout for scurvy, may be practically led astray, for a time at least, while the second illustrates the fact that scurvy may occur as a complication in the course of an acute disease, when it might be pardonable to overlook it in the face of the positive condition already under treatment.

Infantile scurvy has always interested me a great deal; in the first place, because it is certainly seldom recognized by the general practitioner; in the second place, on account of the magical effects of treatment, and, in the third place, because of the utter incredulity with which the parents, and even the family physician, listen to your diagnosis and your ridiculously simple therapeutic directions, and, lastly, on account of the profound gratitude with which they observe the transformation which occurs within a few hours after the treatment has been begun.

In olden times scurvy was a very common disorder amongst adults. Seamen, in particular, were victims of its ravages, and in the days of sailing vessels, when ships were out for months with no other food than salt meat and biscuit, many a crew was decimated by the ravages of scurvy. It is said that during the long sieges of the Middle Ages, when the inhabitants of the beleaguered cities were locked up for months within the

walls, more died from scurvy than from the missiles of the enemy. In our own times a wise legislation has almost banished the disease, except under such conditions as exist in the famine districts of Russia, for instance, where scurvy is reported to be quite common.

It is an interesting fact that scurvy was not recognized as being a possible disease of infancy until recent years. The first recorded case of scurvy in an infant was reported in 1873 by Ingerlev, a Dane. Five years later Cheadle, of London, reported three cases, whose true nature he had recognized. In 1883 Barlow, another English physician, wrote an account of infantile scurvy, with a report of cases, which was so admirable that the disease is still often called Barlow's disease. Barlow's paper attracted wide attention, but it was not until 1889 that Northrup reported the first case in America, and in France it was not till 1894, and in Italy not till 1902 that the literature contains the record of a case of infantile scurvy. It is not my intention to take up the time of the society with an elaborate account of the symptoms of a disease which may now be found admirably described in any good textbook on Pediatrics, but I believe that I may be pardoned if I briefly discuss them.

The disease may be defined as "A general disorder of nutrition, characterized by debility, apathy and anemia, with sponginess of the gums and a tendency to hemorrhages beneath the periosteum of the long bones, the sub-cutaneous tissues, and from any of the mucous membranes. Its etiology appears still to be shrouded in some doubt. By some it is claimed that it is due to a diminished alkalinity of the blood—in other words, that it is a form of acid intoxication. By others that it is due to ptomaine poisoning. By still another group it is now classed as a specific infection. Whichever of these theories be correct, it is certain that in infants, at least, it is rarely met except in those who are fed upon some artificial food or upon sterilized milk, and that a change in the diet is followed by rapid improvement in the symptoms. In the rare cases where scurvy has been seen in children at the breast the milk was shown to be grossly deficient in its composition. While, therefore, it is beyond doubt that the long-continued use of a diet deficient in fresh animal or vegetable properties is responsible for the vast

majority of cases, the fact that thousands of children who receive nothing but a thoroughly scorbutic diet escape the disease entirely indicates that there must be some other individual factor which determines the development of scorbutic symptoms.

As to other etiological factors, it may be said that the disease is very rare in children under 5 months of age; that it is most common between 5 months and 2½ years; that it is seen more often amongst the comparatively well-to-do than amongst the wretchedly poor; and that it shows no tendency to affect one sex more than another.

Pathology and Symptomatology.—In scurvy there is developed a tendency to hemorrhages beneath the periosteum of the long bones, in the sub-cutaneous tissues, and in the mucous membranes. These extravasations of blood are generally associated with great tenderness and pain, and in children the favorite seat of trouble is in the lower limbs and especially the lower part of the thigh bones. In most of the cases the onset of the disease is manifested as a very painful pseudo-paralysis of the lower limbs. The child becomes fretful, it screams whenever it is handled, it refuses to use its legs and pressure upon the thigh reveals perhaps a distinct swelling upon the bone, but almost invariably, even where no perceptible enlargement can be detected, an exquisite tenderness. More careful examination will generally reveal a swollen, purplish condition of the gums, and where the teeth have already come through the gums bleed very easily. The onset of symptoms is as a rule rather sudden and rapid, but in some cases it may be gradual. Since rickets results from the use of the same kind of diet as causes scurvy, it is probable that evidences of rickets will be detected in most cases of infantile scurvy, but this is not necessarily the case.

The condition of these little patients is pitiable in the extreme. They are often fat, rather than emaciated; the skin is muddy in hue, the face wears an anxious expression, as though they feared the agony of being moved or handled. One or both the lower limbs appear helpless and frequently present a decided swelling involving the femur, or even the entire limb. Only too often they have lain in this condition for weeks

or even for months while they were being treated for rheumatism, paralysis or even for suspected acute arthritis.

But while this is the ordinary clinical picture, there are many cases in which the scorbutic taint apparently shows itself by only one striking symptom. Thus cases have been reported in which hematemesis appeared to be the only symptom; in other instances attention was drawn to the fact that something was wrong by the sudden occurrence of bloody urine; and in other cases the first thing to attract attention was a large hemorrhage into the orbit. In these cases, of course, a detailed examination was sufficient to demonstrate other symptoms which pointed to scurvy as the possible cause of the bleeding.

The diagnosis of infantile scurvy depends, in the majority of cases, upon whether the physician bears in mind the possibility of its occurrence. It is not a rare disease, and yet it is not a very frequent one, and the very fact that it so commonly shows itself in children who appear to be fairly well nourished is responsible for a great many errors. Rheumatism is perhaps the false diagnosis more often than any other, and there is not much excuse for this mistake. Rheumatism is not often seen in children as young as those who are the subjects of scurvy, and in the young it is well known that the pain and tenderness from rheumatism are apt to be slight. In those rare instances in which a rheumatism with such tenderness occurs there would surely be both redness of the skin and high temperature. Paralysis is another common mistake in diagnosis. Here, again, the error is due to neglect of the clinical picture presented by the two conditions. I think it may be said that whenever there develops in a young child a sudden tenderness of the limbs, with disinclination to use them, or whenever bleeding takes place suddenly from any of the mucous membranes the suspicion of scurvy should be aroused and a careful examination should be made to detect other evidences of the disease. This is especially true where the child has been bottle fed, and if there remains, in spite of the examination, any doubt as to the diagnosis, it should be tested by the administration of fresh fruit juice or vegetables, whose rapid good effects will remove all doubt.

Treatment.—The treatment of infantile scurvy is both preventive and curative. Wherever it is practicable infants should

be fed on the breast or upon some form of fresh milk. If at the bottle the milk should be pasteurized rather than sterilized. After the ninth month a little orange juice is a wise addition to the dietary of every baby. I do not think it advisable to prescribe it as a routine before this age, because scurvy seldom develops earlier than this, and it is less likely that the digestion will be capable of taking care of the fruit juice. I am often asked whether orange juice should not be given to every child from the time it is two or three months old. I am sure that this is neither wise nor necessary, even where the child is fed exclusively upon condensed milk or malted milk, but I do believe that it is both grateful and healthy for the baby after the seventh month. And right here I wish to say that I believe that the various proprietary foods, and especially condensed milk, have been too sweepingly anathematized by most pediatric teachers. Not only do they fail to practice what they preach in regard to these foods being an abomination in the nursery, but I am convinced that it is a very fortunate thing for the young that they do thus abandon their principles at the bedside. No matter how blatantly we may mouth about "modified milk" in the class room, the fact remains that we all of us use condensed milk widely in our practice, and it is a great pity that writers on pediatrics do not give fuller and more explicit directions for the use of the well-known proprietary foods. I suppose that it has been a case of propaganda, and that in a campaign the faults of the other side must always be emphasized and its virtues minimized.

To return to the treatment of scurvy, it consists essentially in the instant supply of *fresh* food. The easiest way to furnish this anti-scorbutic element is by giving orange juice, but any form of fresh fruit juice will serve, and if oranges are not to be had apple juice, grape juice, or even lemon juice, may be employed. In certain cases where children could not stand orange juice I have found pineapple readily taken care of. It is my habit in beginning the treatment of a case of scurvy to make absolutely no change in the diet or hygiene of the child except to add the fruit juice. In this way the parents are completely satisfied that the trouble was with the food whose defect was remedied by the fruit juice, and they are then

more willing to obey your directions in regard to the future management of the child. As soon as the diagnosis has been in this way perfectly established the baby should be put upon a proper diet, which is suited to its nutritive needs, and in which there is constantly present the "anti-scorbutic property," which Cheadle has named as one of the six essential conditions which must be observed in the diet of an infant.

DISCUSSION OF PAPER OF DR. FENNER,

DR. T. S. DABNEY, of New Orleans: I am one of those general practitioners who are, as the Doctor intimates, responsible for all the grave conditions that are brought to the specialist. I would like to say that anybody practicing in this city up to a few years ago must have seen many cases of scurvy. I myself see fewer now than I did five or six years ago, owing to the improvement in our milk supply; but I can truly say that I have seen and treated in my practice here not less than thirty or forty cases of well-marked scurvy in bottle-fed babies where condensed milk was mainly used. I have one case now, a child two years old. It is very sensitive, and the least little sickness would knock him out. He would not walk for four or five days at a time, but would lie around and cry. The family is Irish and have very strong Irish views on dietetics. I have had to go around there twice a week for two or more months to get that family to give that baby orange juice. He has now gained strength and is free from scurvy and is no longer restless and peevish. I must confess that all of the fault does not lie with the general practitioner. All general practitioners frequently see cases from the many specialists where the centric cause is overlooked in the narrow field of the specialist. The general practitioner can give the specialist a Roland every time for his Oliver.

DR. J. A. DANNA, of New Orleans: I rise in self-defense as the doctor that Dr. Fenner accuses of having punctured that boys thigh. When that child came in he had a swelling of the thigh, which was one of two things, I thought, either a large sarcoma that had begun to break down and had increased the size of the femur to four or five times its circumference at its lower end, or an osteomyelitis in a very much debilitated

baby. I therefore took the child to the amphitheater, explored it and got nothing but a little blood. I was then pretty sure that it was a case of sarcoma. It was an object lesson to me, as well as to Dr. Fenner, and in conjunction with some few other cases that I have seen in recent years it has led me into the habit of always prescribing orange juice for every pale, anemic, debilitated little baby that comes into the hospital. I use the orange juice on general principles, just as the general practitioner is inclined to use quinin in a case of fever that he thinks might be malaria.

I think a paper of this kind is a most profitable one to bring before a State society, because the reading of such a paper can do more good than the reading of any technical article, or an article reporting special work which the general practitioner is not apt to do. I say that if you will prescribe orange juice, which is accessible anywhere, or lemon juice if the orange juice is not at hand, for your weak, debilitated patients, in one-half the cases you will find it will benefit them, even if they have some other trouble.

DR. FENNER (in closing): I seem to have put Dr. Danna on his defense, though I did not intend to. However, he has admitted that he made exactly the same mistake that I did.

Dr. Dabney has misunderstood me. I believe that scurvy is a disease which is frequently overlooked. My own experience has taught me that it is frequently overlooked. I have seen too many cases which have been treated for long periods and by competent men. Therefore, I thought that, inasmuch as it was a disease which was likely to fall into the practice of men engaged in general medicine, that to relate two such unusual cases as these would call attention again to the fact that where babies were complaining of pain we should suspect scurvy. I did not intend this paper in any sense as an arraignment of the general practitioner, but was simply emphasizing a good, practical point.

DR. L. R. DEBUYS read a paper on

The Medical Aspects of Anterior Poliomyelitis.

Anterior Poliomyelitis, or infantile paralysis as it is commonly called, is an acute disease of infancy and childhood

which occurs either sporadically or epidemically. It is the paralysis with which we meet most frequently in early life.

It is characterized by an acute febrile onset, an early and extensive loss of power, with a tendency to spontaneous improvement in certain affected muscles and with permanent loss of power in certain groups which undergo a rapid atrophy.

Various synonyms have been used to designate the disease, namely, Acute Atrophic Paralysis, Infantile Spinal Paralysis and Essential Paralysis of Children.

It was not until 1868 that A. C. Bull, a country physician in Norway, first clearly described the disease under the title of Meningitis Spinalis Acuta, and to him this honor must be conceded. However, the disease must have been recognized before this time under various and misleading names. This we know to be true, for George Colmer, an American physician, while on a visit to Louisiana in the parish of West Feliciana in 1841 described the disease under the title of "Paralysis in Teething Children." To him is due not only the distinction of having described the disease at so early a period, but also the distinction of having first reported it in its epidemic type.

To the observations of Colmer and Bull are we, therefore, indebted for the earliest attraction of our attention to this disease, which is now regarded as a clinical entity, and to the State of Louisiana the honor is due of having been the place where the disease was first recognized and described in its epidemic form.

Whether or not the sporadic and epidemic types of the disease are caused by the same organism or toxin, they resemble each other in a great many respects and differ in others.

In the statistics as given by Gibney and Wallace of the cases collected by them in the epidemics of 1906 and 1907 in New York City, the age, sex and season of the year seem to be important factors in the etiology of the disease. The information deduced from the statistics of these epidemics conforms with that as given by Holt, that is, that the great majority of the cases occur before the fifth year, and of these about 80 per cent begin during the first three years, the period during which the disease is most common being during the second year. However, no age is exempt from the disease; the limits of the cases

recorded are four days and fifty-four years. According to Sinkler, it has been known to begin before birth, giving rise to a congenital type. Collins and Romeiser have reported a case which was probably intra-uterine. Boys are more frequently affected than are girls, the proportion being 55 per cent boys to 45 per cent girls in Holt's collection and in Gibney and Wallace's cases 60 per cent to 40 per cent, respectively.

While a few cases do appear at different times of the year, the disease is more prevalent during the warm months. In the New York epidemics the disease began in May, the number of cases steadily increasing during June and July, and it was during the months of August and September that the epidemic reached its height.

Sinkler in his series of over 500 cases still further supports the conclusion to which he had already arrived in 1875, that a large majority of the cases of poliomyelitis occur during the summer months, 80 per cent of his cases occurring between June and October.

The disease has been known to occur in all parts of the world in both of its types and to affect all nationalities alike. In MacPhail's report, American, Swedish, Italian, French and Jewish children were affected. It is believed to occur frequently near rivers and bodies of water. Whether the water be contaminated and be the carrier or whether the sudden shocking of the individual either due to exposure with its attending chilling or to atmospheric changes frequent near bodies of water, both have their adherents. Painter believes and calls attention to the fact that in his series of thirty-eight cases the majority of his cases occurred on—or more frequently 24—36 hours after extreme heat, and in some cases after a sudden or sharp drop from an abnormally high temperature; in other cases they followed bathing in the ocean.

That Anterior Poliomyelitis is a disease proper is unquestionably recognized; that it follows close on to infectious diseases has also been noticed, especially so after measles, scarlet fever and whooping cough.

Traumatism has been given as a cause, but the number of cases with which trauma is associated is very small, though some cases have been preceded by severe injury. Whether the

injury is the cause or the effect, the belief is more in favor of the latter. The disease is either sporadic or epidemic, and, according to Oppenheim, endemic, when he states that in his own experience most of his cases seemed to come from Weissenensee, near Berlin.

It is possible to believe the disease, when it occurs sporadically, is not infectious; also we must admit from the number of epidemics that have been reported that the disease in its epidemic form must be infectious.

Berg believes that the sporadic Anterior Poliomyelitis is entirely distinct from the so-called epidemic Anterior Poliomyelitis, more properly designated, that the sporadic disease is not infectious, and that the epidemic disease is in all probability infectious, but not contagious.

That the disease in its epidemic form is infectious we must acknowledge when the evidence of the epidemic by Caverly is given. In this epidemic dogs, hogs and chickens suffered from paralysis of rapid onset resembling the disease in the human adult. Dana reported upon a chicken sent him, in this epidemic, that there existed microscopically plain evidence of Poliomyelitis very much like that which had been found in some specimens from cases of Poliomyelitis in the human adult.

Gierswold first isolated a micro-organism which was believed to be the offending agent. Apparently the same organism has been isolated by other investigators, notably Looft and Dethloff, Pasteur, Fullerton and MacCormack and others. This organism, however, has not been a constant finding in the very many investigations.

While the atrium of infection is not definitely established, it is worthy of mention that Gierswold found in the pharyngeal mucus the same organism that he isolated in the cerebro-spinal fluid.

Angina with redness, swelling and increased secretion, with absence of rhinitis and conjunctivitis, have been noted in a majority of cases, hence the possibility of the throat being the point of entry.

Gibney and Wallace carefully analyzed 100 cases for the gastro-intestinal tract as a means of entrance of infection, with the result that diarrhea and vomiting existed in 19 per cent,

vomiting and constipation 11 per cent, diarrhea 11 per cent, constipation 11 per cent, vomiting alone in 11 per cent, making a total of 63 per cent in which at least there was some suspicion.

In the cases of Collins and Romeiser there were many of them in which there was neither diarrhea nor constipation, but fetid stools were noted.

Harbitz and Schell believe that there is sufficient evidence that the infection occurs through the gastro-intestinal tract and that the infection is carried to the nervous system through the lymph or blood, probably the latter.

The pathological anatomy of the sporadic and epidemic cases seem to be the same. Until comparatively recently there was no record of the early lesions, owing to the small mortality in this disease in the sporadic variety and the probable impossibility to secure necropsies in the epidemic cases. However, the picture as described and accepted now differs not at all the one from the other. Miller's case described in 1907 resembles those of Harbitz and Schell of the epidemic of 1907.

Anterior Poliomyelitis usually occurs in a previously healthy child after a day of play. In the evening there may be vomiting and during the night the little patient is fretful and restless and is found to have fever, the temperature being about 101 or -02, rarely 104. At other times it may be ushered in with some intestinal disturbance. Angina is frequently found to be present and pain in the back and limbs are constant. The morning after the acute onset the child is found to be unable to stand or to move one or more of its limbs, the paralysis being present. Sometimes the paralysis may be slow and progressive for a short time. In other cases the symptoms are more severe, and in about 10 per cent of the cases are found somnolence, stupor, unconsciousness, rigidity and retraction of the head, or there may be insomnia and restlessness, twitching of the face and extremities both in sleeping and waking hours, sudden starting and screaming and occasional convulsions. In some cases the paralysis is not discovered until the third or fourth day, probably because of the pain, which is so pronounced that the patient will not allow himself to be touched. Dercum believes the pain is more severe in the epidemic cases. Occasionally there may be incontinence of urine,

but it is never a permanent symptom, and trophic lesions of the skin do not exist.

As a rule, the paralysis is at first widespread; it is motor and may have reached its height before being noticed. It tends to cure spontaneously in certain muscles to a greater or less degree and to remain permanent in certain groups with rapid atrophy. The limbs involved are flaccid, the muscles are soft and yielding and the reflexes are diminished, more commonly absent. The temperature of the affected parts is reduced, and there is pain and tenderness in the muscles and hyperesthesia of the skin. The muscles permanently paralyzed show no electrical reaction and the reaction of degeneration is present to the extent of the involvement in the affected parts.

The temperature may last for four or five days or may subside within twenty-four hours, or it may continue for eight or nine days. In cases in which the patient is not very quiet or in those in which massage or stimulation of the cells is begun too early the temperature may last for a longer period.

The improvement of the muscular power continues for several months, after which in cases not treated the condition remains stationary. In those cases in which treatment is still further persisted in the improvement continues to the extent of the remaining healthy multipolar cells.

The condition of the child is unimpaired save for the remote effects of the nerve cell degeneration and muscular atrophy, which are contractures in certain groups of muscles with spinal curvature, the various forms of talipes, flail-joint and other deformities, and a partial arrest in the growth and development of the affected limbs, which remain permanently smaller and shorter than normal and may show joint malformations.

Anterior Poliomyelitis may be seen in various degrees of severity, from the abortive type to those in which there is evidence of bulbar involvement and those showing cranial nerve symptoms. The abortive type, to which Wickman first called attention in his investigations in 1905, has been observed since in many epidemics. In these cases the individuals are ill for three or four days with febrile movement, followed by considerable prostration. There is headache, vomiting, angina, pains in the trunk and limbs and sometimes twitching. These patients recover completely in a few days.

Another mild type of the disease is seen in those cases in which the fever and general systemic disturbance may be very slight or even absent, the first intimation of the disease being the motor paralysis.

There have been cases reported in which the disease has run its course, a fairly good recovery taking place at the end of a variable time, from three weeks to three months, to have a recurrence of the disease. Such cases have been reported by Sinkler, Giersvold and Wickman.

Diagnosis.—The diagnosis of Anterior Poliomyelitis should not be made until the paralysis has appeared. The most pronounced symptoms, and those to be depended upon for diagnosis are: (1) Sudden paralysis, complete from the beginning; its involvement of one or more limbs, with spontaneous improvement in some and permanent paralysis in certain groups. (2) Loss of tendon reflex. (3) Rapid atrophy. (4) Cold, flaccid limbs. (5) Absence of impairment of sensation. (6) Presence of the reaction of degeneration.

At the onset the disease may resemble an acute indigestion, or the stage of invasion of one of the acute exanthemata. When the pain and sensitiveness of the affected part is present the suspicion of rheumatism is aroused.

In those cases in which convulsions and unconsciousness are present we are still in doubt, as these symptoms appear so often in other diseases that the diagnosis is still an uncertainty. When the paralysis manifests itself we are justified in the belief that we are dealing with Anterior Poliomyelitis. However, the consideration of cerebral palsy is to be reckoned with, and at times this might be difficult. In the acquired type of cerebral paralysis the onset is usually febrile, but there is spasticity or rigidity rather than flaccidity; the reflexes are exaggerated and there is no reaction of degeneration. The cases of cerebral paralysis are usually hemiplegic, are always accompanied at the onset with cerebral symptoms and the atrophy is very much less marked. The greater dependence must be made on the electrical reaction.

Multiple Neuritis is to be distinguished from Anterior Poliomyelitis (1) by its antecedent history; (2) the symmetrical affection of the limbs and tenderness over the nerve trunk; (3)

the atrophy being not so severe, and (4) the course of the disease. In Multiple Neuritis the patient almost always recovers in two or three months, while this is not so in Anterior Poliomyelitis. However, the diagnosis is extremely difficult when Multiple Neuritis begins, as it does, sometimes, suddenly with febrile symptoms and paralysis, and particularly is this so when the case comes under observation when the sensory symptoms are not marked or may have entirely disappeared.

It is well to remember that in Rachitis the muscular weakness at times is so marked that the suspicion of a paralysis is suspected. This suspicion is easily dispelled (1) by the bilateral condition of the rachitis subject; (2) the electrical reaction, and (3) other signs of rachitis.

The pseudo-paralysis of scurvy may at times be confounded with Anterior Poliomyelitis, especially when the latter is of the type of cases with an absence of or very mild febrile onset. In scurvy, however, the excessive tenderness and hyperesthesia, pain on motion, more particularly about the knees, ecchymosis about the joints and spongy gums make a diagnosis positive.

Birth paralysis is to be differentiated from Anterior Poliomyelitis by the distribution of the paralysis. In Erbs paralysis the special group involved is the only diagnostic point.

The pseudo-paralysis of Lues is due to acute epiphysitis, and is usually noticed when the infant is a few weeks old. One or both arms may be involved, and there is tenderness. The position of the arm resembles that of Erb's paralysis. Careful examination reveals that the paralysis is only apparent and is due either to pain on motion or to epiphyseal separation. Electrical reaction and mercurial treatment are diagnostic.

There are occasions when one is called upon to make diagnoses at some time distant from the onset of the disease. It then becomes necessary to differentiate Poliomyelitis from Cerebral Paralysis. The points of differentiation in Cerebral Paralysis are: (1) Paralysis more commonly hemiplegia, all the muscles of the limbs are involved; (2) spasticity; (3) spastic gait; (4) increased reflexes; (5) athetosis; (6) normal electrical reaction; (7) speech liable to be interfered with, and (8) intelligence impaired. These symptoms make up a clear picture of cerebral paralysis.

When Poliomyelitis is seen in its sub-acute or chronic form

it may at times be necessary to exclude either the progressive cerebral or progressive neural muscular paralysis. In Poliomyelitis the onset is (1) sudden rather than insidious; (2) paralysis is retrogressive, not progressive; (3) loss of power sudden rather than gradual; (4) absence of electrical reaction rather than diminished; (5) the absence of hereditary influences.

Pseudo-hypertrophic muscular dystrophy in its early stages is not likely to be confused with Poliomyelitis, but in its later stages when atrophy occurs, and the knee jerks are absent; it may become necessary to make a differential diagnosis. The points which indicate pseudo-hypertrophic muscular dystrophy are: (1) History of the case, (a) hereditary influences, (b) gradual onset, (c) gradual progress of the disease, and (2) absence of the reaction of degeneration, though there may be lessened responses to both faradism and galvanism.

In the prognosis of Anterior Poliomyelitis, here, again, we find that the sporadic and epidemic types differ. In the sporadic cases the outcome as to life is very favorable, but unfavorable as to complete recovery from the paralysis. In the epidemic cases the mortality varies considerably and ranges from 6 to 13 per cent. In the fatal cases death occurs between four and ten days, the majority being on the sixth day, and in these from extension of the paralysis to the respiratory muscles. There was no evidence of heart failure and high temperature was not often noted in Starr's cases, but the paralysis extended upward, involving the respiratory muscles of the throat and the patients died of respiratory palsy.

We should, therefore, always consider the prognosis serious while the disease is advancing, or while the paralysis is extending, especially is this so if it be extending upward. Should the child survive the eighth or tenth day, the outcome is favorable as to life.

While the mortality in the epidemic type is much greater than in the sporadic type, we find that in about 25 per cent of the cases there is complete recovery, which complete recoveries are not frequently seen in the sporadic variety. However, there are a large number in the epidemic cases in which there remains a permanent paralysis, as is found in the sporadic type.

The degree of temperature has no relation to the amount of paralysis. In the adult—and they are more frequently attacked during epidemics than at other times—the residual paralysis is greater than in children, and the recovery is slower.

In Collins' and Romeiser's cases one in ten made a good recovery and one in twenty a complete recovery.

It might be said in a general way that one may expect recovery from the acute illness, that the paralysis will become more limited until a certain point, and that after this point is reached the improvement will continue as the treatment is faithfully and judiciously administered, the important symptom being the extent of the atrophy and the condition of the electrical reaction. The return of the faradic contractility is an indication of coming improvement. If faradic contractility has never been lost an early and marked improvement is to be expected; if lost for six months, a doubtful recovery; if for one year, improvement is not to be expected.

What can be done for the individuals affected with this disease in the way of treatment? Unfortunately, very little that will insure relief from the paralysis. However, with an early and rational treatment, can be expected very little deformity. During the acute stage indications are to empty the gastro-intestinal tract with a mercurial purge; to induce free perspiration by means of a hot bath; to keep the patient in a prone or lateral position, and to use counter irritation by means of dry cups, mustard, the use of an ice bag or the use of leeches. The Paquelin cautery is advocated by some, but the result of the counter irritation is questionable, and the Paquelin cautery is rather an extreme measure. For the convulsions, a warm bath should be given, or if necessary an enema of bromide of sodium 5 to 15 grains and chloral hydrate 1 to 5 grains in one ounce of warm water (an infant of one month can be given 1 grain, at 6 months twice, and at one year, three times the amount); for the pain and restlessness, antipyrin or phenacetin may be given ($\frac{1}{2}$ grain at 6 months and 1 grain at 1 year). Dover's powder may also be given in connection with the coal tar preparations. Absolute rest is essential and the nutrition should be chiefly milk. Ergot is indicated on theoretical grounds, but the effect is doubtful. Iodid of potassium has

been advocated, as has quinin. The salicylates have more advocates than the other drugs. Either the sodium or strontium salts can be given, the latter having a less irritating effect upon the stomach.

Cushing has recently proved that the administration of urotropin results in the presence of formaldehyde in the cerebro-spinal fluid, as demonstrated in his cerebral cases. It is therefore rational to believe that in those cases in which one suspects an infection the use of urotropin should have some beneficial effect. A child eight years old should take five grains every four hours.

The affected limb should be enveloped in cotton batting and should be protected from any strain. The feet should be kept at right angles with the legs, the knees in slight flexion or very nearly straight, and the thighs on a line with the trunk. The ligaments and capsules of the joint should be protected from strain. The idea of the early treatment is to prevent rather than correct deformity. With this in view it is necessary not to allow the child to put the limbs in false positions, which might result in the limb becoming fixed and a resulting deformity. After the inflammatory period has been passed, or in about two weeks, stimulation of the muscles by massage or other means can be commenced. No treatment acting as excitants to the muscles or nerve cells, such as massage, electricity or vibro-massage, should be instituted until we are sure that the inflammatory process has subsided in the cerebro-spinal axis.

DR. C. W. DUVAL, of New Orleans, read a paper entitled

Anterior Poliomyelitis; Etiology and Pathology.

Acute anterior poliomyelitis is a focal inflammatory process of the anterior horns of the spinal cord. The cause of the disease is still unknown, but there is every reason to believe that it is of an acute mycotic nature. This, whatever it be, has escaped the most careful and painstaking research. The whole clinical picture—sudden onset, severe pain, temperature reaching 103° etc.—is strongly indicative of a virulent bacterial infection.

Just where the germ gains entrance to the body, and how long

an incubation period exists, we do not know with any degree of certainty. Some regard the infection as taking place through the circulation, mainly because of the hemorrhagic character of the early lesion. However, I am inclined to regard the portal of entrance similar to that of epidemic cerebro-spinal meningitis.

The disease occurring in *epidemic* form is also strongly suggestive of its acute mycotic nature; in fact, there is everything which points to a bacterium. Epidemics have occurred abroad and in this country. Only recently the epidemic in New York City gave opportunity for untiring search, with the most improved laboratory methods, in the hope of discovering the etiological factor. Several hundred cases of the disease occurred in New York City and vicinity. The patients ranged from five months to eight years in age.

Careful bacteriological study in this particular epidemic was made and the blood and spinal fluid removed by lumbar puncture, but without results. In this series of cases the cellular content and the spinal fluid did not give evidence that the disease was of inflammatory origin; and in no case was any significant number of leucocytes present in the fluid. *Smear* preparations have always been negative except where the disease was superimposed by another infection, for example, pneumococcic, strepto, etc. All sorts of special media have been employed, both anaerobically and aerobically.

The failure to find organisms in smears, even in most pronounced forms of the disease, does not signify much—certainly nothing against a bacterial infection. The organism may be *ultra-microscopic*, or require special methods of staining—who knows? Think of the years we have missed the syphilitic spirochæte because of faulty technique. Now that we know how to stain for it the matter is extremely easy.

Many organisms have been isolated in cases of acute anterior poliomyelitis, and called the excitors of the disease, but the opinions are too much at variance to place credence in any one of them. Geirsvold is of the opinion that the disease is due to a coccus that differs materially from the meningococcus and the pneumococcus. He obtained the coccus from the blood in a number of cases. Bülow-Hansen and Harbits found the same organism in one case. These men claim to have produced atrophy, paralysis, emaciation and death in mice inoculated with the culture.

Schultze found in smears a coccus resembling the meningococcus, but was not able to cultivate it.

Angel obtained a pure culture of the staphylococcus albus in one case. (This undoubtedly was the skin coccus).

Concetti finds the pneumococcus in a number of the cases.

Tetrads have been found by Pasteur and others.

As you may see, many organisms have been described as the etiological factor in this disease. It is apparent, however, that there is a complete absence of uniformity in the bacteriological examinations of the spinal fluid in cases of anterior poliomyelitis thus far recorded, and the results are without the slightest value.

Of late, Wallstein, of New York, working on the last epidemic, has attempted, through the "deviation of complement," to throw some light upon the nature of the infection. This seemed to offer a means of determining a micro-parasitic origin of the disease by the use of the biological reaction of *complement binding*. As you know, this method or test has been applied now to the study of a number of the infectious diseases. Wallstein conceived the idea that if ac. ant. Polio. is due to some hitherto undiscovered micro-organism it might be possible to find evidence of its presence by demonstrating its *specific antigen*. Having assumed an *infectious-antigen-producing* origin of the disease, he naturally thought that, during recovery, "antibodies" to the antigen would be found in the blood serum or spinal fluid; however, to the contrary, as the results showed no two interacting substances that were capable of anchoring complement; therefore, the serum reaction fails as a means of throwing light on the etiology of the disease.

PATHOLOGY.—The lesion invariably occurs in the cervical or lumbar enlargement of the cord. Though usually situated in the anterior horn, it sometimes extends to the posterior. In many early cases the histological change is acute inflammatory, which, owing to the consistence of the surrounding nervous tissue, is associated with more or less hemorrhage. It is this hemorrhage, in turn, through pressure, brings about a break in the motor connection with the ganglion cells of the anterior horns.

Many authors claim to have demonstrated an arterial origin for the disease, having found localized lesions of a degenerative nature in branches of the central spinal artery. In my opinion these vascular lesions are part of a general or peripheral arterio-sclerosis

or the ordinary concomitant reaction on the part of the vessels to inflammation. Thrombosis does occur to the vessels involved in the lesion, which undoubtedly results as a sequence of the acute infection.

In general, the lesion is acute exudative or acute inflammatory, characterized by a leucocytic migration of polynuclear elements, etc. This passes over into the sub-acute stage (lymphoid and plasma cell infiltration), and finally into the chronic stage, where there is more or less *organization*, with a resulting cicatricial tissue—a glia cell proliferation. Degenerative changes in the nerve cells and fibres quickly follows, which naturally results in the paralysis of muscle supplied.

DR. E. M. HUMMEL, of New Orleans, read a paper entitled

The Nervous Manifestations of Anterior Poliomyelitis.

Considered in a strictly neurological sense, the syndrom of poliomyelitis is a very simple and clearly understood problem. This is because the pathology and the distribution and function of the proper nerve elements involved are so well known. One of my difficulties in this symposium will be to stick to nervous manifestations strictly. If I wander into other phases of the subject occasionally it is with the purpose of making a neurological point.

Infantile paralysis in its uncomplicated occurrence is purely and simply an involvement of the cells of the primary or peripheral neurones in an acute destructive or damaging inflammatory process, with secondary degeneration of their respective axis cylinders as they course through the nerve trunks to the muscles of their distribution. As is well known, the cells of the anterior horns of the cord supply motion to, and govern the nutrition of, the muscle tissue to which they are distributed, and with singular definiteness these are the functions abolished or impaired in the disease under observation. Sometimes pain on pressure or motion, dull and of a rheumatoid character, is complained of during the first weeks of an attack, but this is due to an incidental mild neuritis of peripheral nerve branches or to impaired vaso-motor tone and retarded circulation in the tissue of the implicated extremities, and not to the process proper. The latter observation also explains coldness

and cyanosis of the affected parts. Likewise, the child may be partially incontinent for several days after the onset of the attack, but again this is merely an instance of reflex disturbance of a sensitive sphincter, for the bladder and rectal functions are never finally impaired in the disease proper. Of course, in the very early stages of involvement of the cord structures, the posterior horns and other sensory structures may be for a short while impinged upon by the edematous or exudative products of the inflammation, and there may be, as a result, parasthesiæ, but these are so insignificant that they can be disregarded as proper features of the nervous manifestations.

Now, the neurological expressions of lesions of the primary motor neurone are (1) flaccid motor paralysis; (2) loss of tendon reflexes; (3) reaction of degeneration; (4) atrophy of the muscle in its distribution. In the early stages of indistinct cases no positive diagnosis can be made until these important signs have frankly declared themselves—and in a certain order. When, after a sharp febrile or systemic insult, a child is observed to be more or less widely paralyzed, and when, on further observation, the paralysis is found to improve or recede, leaving a residual paralysis in those muscles in which the weakness was originally most pronounced, and when, on examination, the four cardinal symptoms before enumerated are found to be present, the diagnosis is easy and certain.

Acute myelitis, hematomyelia, syphilitic pseudo paralysis, cerebral palsy, rachitis, obstetrical paralysis, peripheral neuritis and progressive muscular atrophy are the diseases most likely to be confused with poliomyelitis. I will refer to several points of differentiation.

Myelitis is usually accompanied by pain, exaggerated reflexes, sensory disturbances and involvement of the sphincters. Hematomyelia is without fever usually, and nearly always follows trauma. Syphilitic cord involvement is accompanied by other signs of the specific process, and its manifestations are distributed, as a rule. In cerebral palsies, the paralysis is usually hemiplegic, is spastic, the reflexes are exaggerated in the affected area, convulsive phenomena or mental defects are rather the rule in children. Rachitis tends to ankylose the intervertebral joints and cause rigidity of the massive muscles which immobilize the vertebra, as well as pain

and resistance to flexion of the column. Obstetrical paralyses are limited to traumatized nerve trunks, and are found usually in the parts likely to be handled with violence by the obstetrician—namely, the shoulders and arms. Peripheral neuritis is rare in children; it is more gradual in onset, the fever lasts longer, local pain and tenderness to pressure is pronounced, edema may be present, the paralysis is slow in developing and is more diffuse; atrophy is less marked and appears more slowly. In progressive muscular atrophy the onset is infinitely more gradual; weakness or paralysis follows the atrophy, whereas the paralysis precedes atrophy in the case of poliomyelitis. The difference of distribution and many other familiar points usually distinguish one from the other on sufficient observation. Briefly, these are some of the distinctions that assist one in making a diagnosis of poliomyelitis by elimination.

As to the distribution of infantile paralysis, it is most frequent in the lower extremities, though not at all limited there. In trying to understand the influences which determine what segment or ganglion group will be most severely or most often involved, it is helpful to conceive of the spinal cord, medulla and pons as a unit. These structures are alike, in that they are each repositories for a more or less uninterrupted chain of ganglia of motor nuclei from which issue the anterior roots of the cerebral and spinal nerves. The cranial nerves are exactly similar in neuron architecture to the spinal, and all except the first, second and eighth may in rare instances be involved in poliomyelitis.

The ganglia of the lumbar enlargement of the cord are most susceptible to involvement, probably because they are more dependent circulatorily, in a way, and because they are under functional stress from inordinate activity of the muscles of the lower extremities at this time. The special prevalence of poliomyelitis in children just at the time they are learning to walk, or a short time thereafter, is significant, and not only are the lower extremities most often stricken, but a certain group of muscles, easily fatigued in walking, are, of all others, most often involved—the anterior tibial group. It might be surmised, in this connection, that there is at first a generalized myelitis which, as regards the posterior horns and other structures which escape damage in this disease, is mild and productive of only slight and brief symptoms. The in-

flammatory process blights where the arterial supply is most direct and abundant, and on this latter account inflammatory reaction is most destructive in a fragile tissue.

At any rate, as has been mentioned before, the paralysis is at first widespread, but day by day in the early stages it recedes, until at the end of several weeks the residue of permanent paralysis is observed in the muscle groups whose neurones have borne the brunt of the attack. Even this more profound involvement improves under treatment and care, until at the end of eighteen months or two years the final paralytic result is only a small fractional part of the primary effect of the attack. Involvement of the cranial nerve nuclei in the medulla or the horns of the upper cervical region are dangerous to life, because of the contiguity of vital centers. The writer saw during the past autumn a case in which the upper segments of the cervical cord were involved. Death resulted as a consequence of paralysis of the diaphragm.

Lack of development in the parts permanently affected in infantile paralysis is a question of disturbed trophism. The involved parts simply fail to expand in growth and proportionment, while the unaffected limb attains to natural size. (Trophism of bone is likewise suspended.) In this way are the disproportionments in the length of extremities produced which assist in finally converting these patients into orthopedic cases.

DR. ESPY M. WILLIAMS, of Patterson, La., read a paper entitled

Obstetrical Surgery.

GENTLEMEN—It was with no small measure of gratification that I received and accepted this honor conferred upon me by our President. The feeling of great pride which I experienced in being selected to preside over this Section on Gynecology and Obstetrics, leaning strongly as I do to the surgical side of our profession's work, was, I am sure, pardonable, especially since, though opposed to the too-common form of self-depreciatory preface, I cannot help but feel that there are many who might more properly honor the office than myself.

In casting about for a subject with which to open this Section I was struck by the fact that it has heretofore been our **almost**

invariable practice to give over our papers and discussions to matters gynecological, the obstetrical side of the Section being to a great extent neglected in the desire for furtherance of surgical practice and progress. In selecting as a subject for discussion "Surgical Obstetrics," I feel that both the surgeons and obstetricians assembled here will have full voice, and at the same time that the subject will be one of paramount interest, bringing us, as it does, into a field which has been, to a very great extent, a neglected one in this part of the country, though one which is well under fire in medical assemblies elsewhere, particularly in the East and Northwest, where it has, during the past several years, really received the attention due its importance, and where the continuance of such attention bids fair to bring us to a knowledge of practice in excess even of what our hopes may be.

In our obstetrical teaching we have all learned that the process of labor is, to a great extent, a "touch-me-not" affair, and we dare say that in attendance upon any given case the trite phrase, "meddlesome midwifery," comes to the mind of the attendant even before the patient's condition is made out. So strongly imbued have we become thuswise that the question even of forceps' use in low cases is still a moot one with many practitioners, and the comfort of the patient is oftentimes sacrificed to the indecision on the part of the medical attendant as to the extent to which he may go without "meddling."

Were women so physiologically constituted and anatomically arranged that the process of labor were always perfect, we might dispense with midwifery entirely; and while it is a fact that in a very large number of our cases a few pains suffice to bring the labor to a close, there remain still a relatively large proportion of instances in which parturition is an extremely difficult, if not a really dangerous process, attendant with a high degree of morbidity and mortality both to the mother and to the child. We are accustomed to ascribe this troublesome state of affairs to the changes, structural and metabolic, which so-called "civilization" has brought about; but, lay the blame where we will, the fact as such remains with us. No happier state for woman nor doctor could well exist than one in which we were all but midwives in this work, no matter how great a fall might our pride sustain, in having but to wash the babies and dress their umbilical cords.

Therefore will this subject be placed before you in somewhat of symposium form by the different gentlemen on this Section's programme. This of mine is meant to serve simply as a preface to the real work to be done. In the consideration of the abdominal and vaginal Cæsarean sections, hebotomy and high forceps, we are gradually drawing away from traditional methods and moving onwards in this at last, as we have done in all the other branches of our profession.

The abdominal Cæsarean section has been with us for long: First as an accident through the mutilation of a woman by a bullock, then in deliberate performance by many surgeons prior to the much-quoted "Listerian era," it is at the present time a thoroughly well-tried and accepted procedure in all instances where positive indications exist, and is now, too, beginning to go ahead of this limit, with many obstetricians being already numbered among the elective operations. The constitutional ill-equipment of the patient as a factor in determining the performance of the primary Cæsarean section, as put by Edward Reynolds (*Journal A. M. A.* Vol. 49, p. 1329), is at the present time of the greatest importance among all the questions of obstetric surgery, and is calling for most accurate determination. As Reynolds says, the choice between a hard, high forceps on the one hand and Cæsarean section on the other, is curiously ill-stated in the current literature of to-day, and, to one familiar with the literature only, the positions taken by different authors, and even by the same authors when writing upon different points, would seem to be at times flatly contradicted. "Thus the common sense of different leading obstetricians has led them to take repeatedly the position that Cæsarean section, as an operation of choice, is preferable to difficult high forceps or version; yet few obstetricians would condemn the mother to any possible increase in mortality for the sake of saving the child; while every one admits that hard intrapelvic operating has a maternal mortality, it has a very small mortality; and, on the other hand, the mortality of Cæsarean section is spoken of as being from 4 to 6 per cent. These contradictory attitudes are, of course, more apparent than real, and rest, in fact, in a failure to state in words the great differences in mortality of Cæsarean section under differing circumstances."

These differing points, hard high forceps and elective Cæsarean

section, hold within themselves considerable danger to us, the personal equation being of such great importance here in the separation of the wheat from the chaff of our judgments, and in some lights it would almost appear that they are subjects for discussion only before special societies. We have witnessed many disasters due to the misconception of the widespread Ochsner treatment for appendicitis; there are unknown possibilities of danger in the delay at present urged in the treatment of certain cases of ruptured tubal pregnancy, and a widespread knowledge of elective abdominal delivery will have its harvest of disaster until the matter is thoroughly worked out. So far as we ourselves are concerned, our position would be decidedly in favor of a primary section in any instance in which the condition of the mother pointed to undoubted severe morbidity following a hard pelvic extraction, since we are happy in the possession of facilities therefor; the danger-point lies in the fact that most practitioners are apparently willing to undertake surgical operations of all sorts, after reading of low mortalities in the hands of others, without experience sufficient to justify them in so doing and without hospital facilities, and do not seem to feel in duty-bound to call in consultation others whose facilities and experience in work could command a low mortality in these cases. The operation has become very popular and has attained a vogue, as Reed says (*Surgery, Gynecology and Obstetrics*, Vol. 2, 1906), that threatens, unless checked, to become a serious menace to the people, and in time to react upon the profession itself. It has seemed wise, therefore, to voice a word of warning against the hopes inspired by the hospital mortality of the operation. Giving such a mortality, with a good operator, as from 4 to 6 per cent, there is not a particle of doubt but that, with everybody operating, a mortality of more than 60 per cent could easily be reached. There is no reason whatever why the mortality of primary Cæsarean section should not be reduced to *nil*, provided a very clear understanding of conditions can ever be reached among us; but as long as everybody is his own surgeon, or sends his case for operation after attempts at pelvic delivery have been unsuccessfully made and infection thereby established, the pros and cons of the subject are ever going to be before us and always unsettled. The extra-peritoneal method of section is promising very much in the way of eliminating danger in infected cases,

as is also the Porro operation; but we would deem it best to mutilate and deliver if the woman cannot be seen prior to infection. We should assume that in multiparous women it is not the pelvic measurements, but the history of previous labors, which should be the paramount point in determining the indication. In primiparæ, common sense in determining the value of pelvis diminution in size as against the strength and endurance of the individual, should in the main guide us in the right direction.

The question of hebotomy has not been directly brought up for discussion. This operation, though still performed by several operators of prominence, is already in great disfavor, its maternal mortality and morbidity, especially the latter, being in excess of that in the abdominal section. It has been purposely omitted, since its technique seems to be so easy that it might suggest itself to some as a feasible last resort in some case with, in all likelihood, bad results. We must remember that in any operation the size of the wound made, the opening wide of the abdominal cavity perhaps, and work going on, as it were, in the glare of the footlights, is no indication as to the real gravity of the operation.

The vaginal Cæsarean section has of late been receiving much attention, and the results seem to be extremely gratifying in many instances. It would appear, however, that there cannot be many cases in which obstruction by the soft parts only cannot be in some other way circumvented. The operation would seem to us to have its greatest field in placenta prævia. Simple cervical incision in cases with hard and undilatable cervix demands a few words here. The heavy instruments for dilation are more or less dangerous; dilatable bags provided for this purpose are somewhat uncertain, and Harris' method, while very serviceable, demands a degree of forearm strength not always possessed by the operator. We have used the bimanual method advised by Edgar in three cases and have torn two cervices. A simple cervical incision will frequently clear up all difficulties present, and careful suturing of the cervix after delivery will obviate any untoward result.

The question of high forceps in cases which promise great difficulty is a most troublesome one for our discriminative efforts. By "high forceps" we mean here both those cases in which the head is engaged, but firmly wedged within the superior strait, and those in which the head cannot be made to engage—a condition *very*

aptly termed by Williams "floating forceps." We have ourselves upon a few occasions applied the forceps to unengaged heads, and none but those who have done the operation know of its difficulties to the operator, to say nothing of the dangers to the mother and the almost certain death of the child as consequences. To heads firmly wedged in the superior strait the dangers are both practically the same to mother and child, as in floating forceps, to the child, in many instances the procedure becoming naught but a craniotomy in the end.

We wish to repeat here what was said regarding the apparent differences in the difficulties to be met with in the performance of obstetric operations, it being obvious that the operation of hard high forceps, though the procedure does not open the abdomen, is still a most serious procedure, done within a small field, in which asepsis is not only difficult to obtain, but to maintain; and it would seem to us that a choice between a hard high forceps and an abdominal delivery would not be hard to make, and would be decidedly in favor of the latter, previous manipulation not contraindicating, and necessary equipment permitting.

These statements regarding the Cæsarean section will assuredly seem to be destructive and too sweepingly made to many who are face to face with conditions necessitating prompt action and who are not prepared for the performance of the serious operations. Though we have always before us the hope of reaching a point where work in its performance and results will be entirely ideal, it must happen, and especially amongst practitioners in the country, that emergencies will arise in which these ideal methods cannot be carried out. In these instances we have perforation as a last resort. When carried out with due precaution its mortality is not high, but it is an operation carrying with it great chances of severe morbidity to the mother, certain death, of course, to the child, and much of horror to the practitioner. Craniotomy on the living child seems a barbarous practice, and we have no hesitancy in saying that in our hands it shall never occur, though it is practiced at times by as great an obstetrician as Pfannensteil, for educational purposes. On the other hand, if the child be left to die before perforation is done we are in reality quite as responsible for that death, even though it comes indirectly; and here we must comfort ourselves in the thought that in these cases the life of the mother

is to be the first aim. In the performance of the primary elective Cæsarean section in actual country practice (and by this we mean an environment without hospital facilities and with no special surgical training on the part of the practitioner) "the operation is undertaken on relative indications" only, and is intended to increase, and not to diminish, the patient's chances for life; if it cannot be done with the aid and assistance of all the factors and conditions that are essential to its success, it must not be done at all." (Reed, *ibid.*)

All of these questions are to be before us to-day, and it remains to be seen how much further towards a clearer understanding of conditions and problems we will be after their discussion has taken place.

We would submit, lastly, that the possibilities of greatest success cannot but be viewed pessimistically. Such possibilities appear to lie in the direction of Cæsarean section in all difficult cases, but ideal results in this wise will only be achieved after the banishment of the midwife, after all pregnant women are examined at some time prior to their expected confinement. after lawful restraint has been placed upon the promiscuous practice of surgery, and by an honesty of purpose on the part of the family physician in calling capable consultants at an opportune time. There is at the present time no excuse, however, for the city practitioner's hiding behind the methods of old practice, in which a dead mother or child, or both, from improperly applied pelvic delivery becomes "God's will" alone. The day of the specialist in obstetrics is with us; but the ultimate attainment of all these necessities we cannot honestly hope ever to witness.

DR. S. M. D. CLARK, of New Orleans, read a paper entitled

Abdominal Cæsarean Section.

Formerly the pregnant woman was not a fascinating field to the surgeon. It is only in recent years that this marked hesitancy to apply modern surgical principles to obstetrical problems has been partially overcome. In the last decade, as a result of successful achievements, the surgeon is just beginning to show a disposition to overcome the instilled repulsion to the child-bearing woman. The higher civilization becomes, the more difficult do we find

labor; the further we are removed from the barbaric state, the less physiological does labor become, and we are finding in the present day a greater demand for the necessity of assisting nature. In comparing the relative merits of certain procedures, rational conclusions can be reached only after studying the end results obtained through the various measures.

The object of labor is not only to have a child, but a living, **HEALTHY** child; so, therefore, in inquiring into the comparative statistics between high forceps, version, premature labor, vaginal Cesarean section, pubiotomy and abdominal Cesarean section, one has not only to take into consideration the mortality of the mother and fetus, but it is only just that a study should be made as to the after-condition of both child and mother; the childless mother is not to be considered more than the motherless child made liable to a life of idiocy or epilepsy. The child has never received the same consideration as the mother. This, I think, is unfair, and in selecting the best method we should choose, as far as possible, that which leaves both mother and child in perfect health.

Compare the relative fetal and maternal mortality accruing from high forceps. version. induced labor, etc., with that of Cesarean section.

Dr. Miles Porter recently presented an extremely strong paper on St. Louis bearing on this subject, and has compiled some very instructive statistics, from which I have liberally quoted.

Statistics.—The summary of his statistics is that from induced labor, high forceps, version, etc., there has been a maternal mortality of 1.14 per cent and a fetal mortality of 17.3 per cent. Further than this, they show a serious maternal morbidity of 42 per cent and a serious fetal morbidity of 12.3 per cent.

From thirteen different operators he collected 126 cases in which elective abdominal Cesarean section had been performed. These cases gave a maternal mortality of 1.58 per cent, a fetal mortality of 0, and a maternal morbidity of 12.69 per cent and a *nil* morbidity in the fetus.

Sachs says that 20 to 25 per cent of idiotic children are in that condition as a result of difficult labor. Suttworth says 29 per cent idiots are due to instrumental delivery.

Mouser says that in 727 cases of feeble-minded youths in which the birth record was given, there was a history of difficult labor in

11.69 per cent, and in the epileptics difficult labor occurred in 17.64 per cent. There is also a very close connection between cerebral hemorrhage in infants and difficult instrumental delivery. Frazier says that, should the child recover from the cerebral hemorrhage, at least 30 per cent subsequently develop epilepsy. Twenty per cent of premature children die in the first years.

One of the most attractive features of Cesarean section is that it gives the child the best possible chance for life and at the same time subjects it to no possibility of becoming an idiot or an epileptic as a result of traumatism. Craniotomy on the living child is absolutely unjust and indefensible. As Deaver so aptly says, when arguing whether mother or child should be given first consideration, "neither the surgeon nor the accoucheur is the legal executioner."

In what condition does Cesarean section leave the mother? We have already seen that the mortality from Cesarean section compares most favorably with that from high forceps, etc. As to whether the incision in the uterine wall repairs, statistics are in abundance showing that the wall repairs itself perfectly, and subsequent labor progresses normally. Sinclair reports a case in which Cesarean section was performed four consecutive times, and in each instance it was with difficulty that he could find the seat of the former incision.

Our present views in this locality upon Cesarean section remind me very much of our former conception of yellow fever. Yellow fever, in its earlier visits to this country, wrought great havoc, wiping out entire families and practically depopulating cities. After twenty years' absence, upon its reappearance it was but natural that the people thought of this fever in the light of its past history. Latterly, when modern science had conquered this disease, it has been robbed of its terrifying features. Just so was our view regarding fibroids twenty-five years ago, when the best operators were having a mortality of from 90 to 100 per cent with this class of tumors. It was regarded as a most formidable undertaking in those days, whereas at the present time 5 per cent mortality is the average death rate. And so it is regarding Cesarean section in this locality. We are hiding behind tradition, and it is imperative that we align ourselves with modern progressive ideas. In the past five or six years medical literature has literally overflowed with reports of brilliant results following surgical obstetrics.

Grandin says that the Cesarean section is the easiest procedure in the whole range of abdominal surgery. In the four cases I have seen I have been impressed with its extreme simplicity.

Recently I witnessed in one of our leading institutions a case of central placenta previa occurring in a primipara 46 years of age, in which delivery was attempted by one of our brightest young surgeons. He employed the old method of forcible dilatation of the os, plunging the hand through the placenta and attempted to extract the child by podalic version. In this case both the mother and child succumbed at the time of manipulation. I do not cite this case in a spirit of wanton criticism, but do it to emphasize the fact that in our midst there is still a decided disinclination to apply surgery to complicated obstetrics. Had a Cesarean section been performed on this woman, to my mind there is no reason to believe that such a story would be told. In determining when a Cesarean section becomes necessary, demands are made upon one's high judgment. Reynolds and Davis have strongly urged that the woman should not be allowed to reach the moribund stage before being given the benefit of this operation. If performed early enough, Cesarean section is the safest of all abdominal sections. The former death rate in Cesarean section was not so much due to the method, but to the great delay.

It is to be regretted that Cesarean section can only be performed when surgical facilities exist, and naturally is not within the province of all general practitioners. The so-called minor operation, when forceps are employed, is looked upon by many as a procedure in which but little skill is necessary in order to properly manipulate; but, as I see it, it requires in some cases more skill to handle forceps than to perform Cesarean section.

Surgical institutions are springing up in most of our small towns, and men of surgical ability preside over these institutions. So, therefore, the facilities are at the command of a great many general practitioners, if they be on the alert to recognize cases demanding surgical assistance. The public has to be educated along progressive lines. At the present time a Cesarean section in this locality creates a decided furore. It is unique in its very name, and to-day, if Cesarean section is posted on the bulletin board, it would attract more attention than any other announcement, even though there be operations done requiring far greater skill than does this simple procedure.

Even at the present time I believe it would be less shocking to the physician to kill the child and nearly kill the mother, so long as it was executed in the natural ways, rather than to have resorted to a simple, clean abdominal section.

If men had babies, we all know that there would be a decided decrease in the birth rate; but I firmly believe that Cesarean section would be quite popular, especially in all complicated cases, for it would minimize the great torture, mutilation and laceration of the soft parts with the greatest possible chance for the life of the child.

In emphasizing the merits of Cesarean section, it is well to guard ourselves against the possibility of allowing our enthusiasm to be unchecked and unnecessary surgery be employed. In this bounding surgical age, with its ambitious operators, there is very apt to develop a tendency to too early interference.

In conclusion, I would recommend that we continue to recognize the great resources of nature in the management of this all but miraculous mechanical progress; but at the same time we must keep in mind that there comes a time when nature cries for assistance, and if we be on the alert and adopt Cesarean section we have in it a great life-saving measure.

DR. C. JEFF MILLER, of New Orleans, read a paper entitled

The Indications for Vaginal Cesarean Section.

It is difficult to arrange in a concise form the indications for an operation which has been the subject of as much spirited controversy as vaginal Cesarean section. The contention waged by advocates of bloodless dilatation on one side, and the champions of incisions on the other, has been very confusing to the student and occasional operator who desired a practical working basis. The operation has been proclaimed as one of the greatest surgical feats of the century by surgeons of unquestioned ability and judgment, and condemned by equally experienced authorities as irrational, hazardous and without a single advantage over bloodless dilatation.

As a preliminary to the discussion of special indications it may be stated that the adoption of vaginal Cesarean section is but another step in the general application of active surgical measures

instead of expectant treatment in the complications arising during pregnancy and childbirth. It is the extension of the demand for an active surgical procedure in abortion, the more frequent employment of Cesarean section in reference to relative indications, more definite technique in the treatment of eclampsia and placenta previa, and, above all, to the growing confidence that pregnancy is not a contra-indication to surgical procedures if due regard for cleanliness is observed from the beginning.

No doubt a large part of the discussion arose from the failure to define terms. The chief indication, in the majority of instances, is cervical rigidity and the degree of rigidity calling for vaginal Cesarean section will always be relative and dependent upon the personal experience and opinion of the obstetrician. The question of the personal equation, however, always enters when fixing the indications for any operation.

The chief advantage of the operation, viz., the rapidity with which the uterus can be emptied, caused considerable dissension. It is true that the uterus can be emptied in from five to ten minutes, but, how seldom is such haste really necessary? It is only occasionally of great importance, and the difference of emptying the uterus in five minutes by section, or dilatation in thirty or forty minutes, by manual dilatation, is often immaterial. Still there are cases where the mother's or child's life, or both, may be saved by a more rapid delivery. The greatest argument in favor of the operation is that sometimes it is the *only* method by which rapid emptying of the uterus is possible without a prohibitive mortality.

There is no doubt but that the operation has been performed occasionally without sufficient indications, but this should not be charged against the operation. The obstetrician possessing the necessary surgical qualifications has probably been among those who may have misapplied the procedure, but he has ample reasons for adopting methods that give a clean-cut wound to deal with, a method which appeals to his surgical instincts as presenting every advantage over a bruised, lacerated and often infected wound, when the various methods of dilatation have been misapplied.

The indications for vaginal Cesarean section, as recently condensed by Petersen, are practically those accepted at present. The operation is indicated: 1. Where there is some abnormality of

the cervix. rigidity of the os and cervix, cicatricial stenosis, carcinoma, which renders dilatation by uterine contractions impossible or difficult, and when a clean-cut incision through one or both cervical and uterine walls is safer for the mother than divulsion.

2. When the mother's life is in danger and the uterus must be emptied quickly, but the cervix is rigid and unyielding.

3. When the life of the fetus is threatened, the cervix is unyielding, and rapid extraction of the fetus is imperative in order to save life.

Holmes' classification of the various indications are, viz., into (a) Essential Indications—Various forms of cervical rigidity; (b) Contributory Indications, e. g.—Complications of labor—is excellent, and permits a separation of various features having a bearing on indications, operative mortality and complications. The first class quite correctly determines the type of operation, and will give the only statistics from which to study the primary results of the operation. The second class merely indicates the necessity for forced delivery, and has furnished the majority of the most serious arguments against the operation. There may be a double indication, as eclampsia. or a heart lesion with rigid cervix, in which the operation is clearly indicated.

It is only necessary to enumerate the types of cervical rigidity—rigidity without pathological changes; rigidity due to cicatrices following operations (e. g.), trachelorrhaphy; faulty positions of the uterus resulting from fixation operations and new growths of the cervix.

Only the latter group needs elaboration, since carcinoma of the cervix is classified under this head and presents some debatable indications for consideration.

Carcinoma of the Cervix.—The usefulness of vaginal Cesarean section when malignant disease of the cervix complicates pregnancy is relative and depends upon the duration of pregnancy, the extent to which the disease has progressed, the presence of infection and the condition of the patient. Pregnancy tends to bring about rapid growth and extension of pre-existing carcinoma. At the same time carcinoma influences pregnancy very unfavorably, abortion being noted in from 30 to 40 per cent (Williams).

Sarwey found that 43.3 per cent of 603 cases of carcinoma

complicated pregnancy died at the time of labor or during the puerperium, 8 per cent dying undelivered.

For comparing the satisfactory results of vaginal Cesarean section it may be mentioned that Dührssen collected 53 cases of the combined operation, viz., section followed by vaginal hysterectomy, with a mortality of only 5 cases (9.4 per cent). This seems overwhelmingly in favor of vaginal Cesarean section on the surface, but the indications urged by several authorities would suggest that the operation has been performed when some other procedure might have offered the mother increased chances for relief. There is no question but that superior advantages are offered by vaginal Cesarean section followed by vaginal hysterectomy in advanced cases when the main point is the delivery of a viable child. On the other hand, it hardly has an indication in the first half of pregnancy if the malignant process has not extended too far for a radical abdominal operation. If the case is technically operable, radical abdominal hysterectomy is the only operation offering any probability of a permanent cure. In the light of Sarwey's statistics, forcible dilatation with fingers, metal dilators or otherwise is almost certain to lead to lacerations into the parametrium, rupture of the uterus or infection. We must, therefore, conclude that vaginal Cesarean section with vaginal hysterectomy offers a distinct advantage over abdominal Cesarean section in advanced malignant disease of the cervix.

There has been very little satisfactory reduction of the mortality following abdominal Cesarean section in the presence of infection, and it must be remembered that the majority of advanced cases of carcinoma are already infected.

When a growth of benign nature is situated in the lower uterine segment or cervix it is a question whether the abdominal Cesarean section will not give better results because of the opportunities presented to practice some conservative measure.

Eclampsia.—Eclampsia and pre-eclamptic toxemia have furnished the largest number of cases calling for vaginal Cesarean section. The statistics of Dührssen, Olshausen and Zweifel, showing that the convulsions ceased immediately or soon after delivery in 93.75, 85 and 66 per cent of their cases, and Zweifel's

statement that his mortality had been 28.5 per cent under expectant treatment and 11.25 per cent under active treatment, are a most convincing argument in favor of some rapid, clean method of accouchement forcé.

The most essential feature in the successful treatment of eclampsia is some definite, prompt, but not heroic, line of action, based upon the phases of the disease, the condition of the cervix and the changes incident to delivery.

The indiscriminate administration of chloroform for hours and other sedatives which only mask the horror of the picture no doubt add not a little to the already heavy mortality. If the cervix is already yielding, the convulsions lessening in severity and frequency and the coma is not profound, sedative and eliminative measures may fulfil all indications.

If the cervix is effaced and time is not a necessary element the Vorhees or the de Ribes bags, or, better, manual dilatation, will prove entirely satisfactory.

If the cervix is rigid and the lower segment unyielding, manual dilatation under the most favorable circumstances requires from a half to three-quarters of an hour to complete the preliminaries to delivery. In such conditions vaginal Cesarean section can be performed in 15 minutes; the patient is under anesthesia a shorter time, there is less manipulation, less likelihood of infection and clean-cut wounds to close instead of ragged lacerations, often extending far into the parametrium. Williams states that the cervix was deeply torn in six out of thirty-one cases in which Harris's method was employed. This point should be strongly emphasized, as there is a tendency upon the part of practitioners to institute such methods without reckoning the results.

Williams further states that vaginal Cesarean section will almost supplant other methods of promptly emptying the uterus when the cervical canal is intact, as it affords a satisfactory means for terminating pregnancy within five to ten minutes and at the same time does away with the fear of deep tears and presents clean-cut incisions which can be united under guidance of the eye.

Some still advocate abdominal Cesarean section in preference to the vaginal operation. In the light of present statistics the

abdominal route has nothing to commend it. Hammerschlag found in 34 cases of abdominal Cesarean section performed for eclampsia a mortality of 53 per cent (12 per cent of these septic). Of 112 cases of vaginal Cesarean section on account of eclampsia collected by Duhrssen there was a mortality of only 15 per cent, with only two deaths from sepsis. It must be concluded from these statistics that the abdominal is five to six times more dangerous than the vaginal route.

Placenta Previa.—There will be few indications for performing vaginal Cesarean section in placenta previa. The cardinal principles underlying the successful management of this disease are prompt control of hemorrhage and delivery of the child in a way consistent with the welfare of the mother.

Holmes has shown that a rigid os in misplaced placenta is one of the rarest obstetric anomalies (not one in 606 cases), and to incise fragile tissues full of bleeding sinuses may be sufficient to turn the balance against the patient. Rapid extraction of the child also adds an element of shock which can be avoided by first controlling hemorrhage, then slowly delivering the child while the anemia is being combated by proper measures.

It is safe to predict that the operation will never be adopted by practical obstetricians, for the same objections hold good that have been raised against the abdominal route, viz., that the other means of treatment are so satisfactory (so far as the mother is concerned) that it would be urging a method of questionable utility in behalf of the child at the expense of the mother. Moreover, I believe that it is generally conceded that the fetal mortality is not susceptible of material reduction, for the reason that pregnancy is usually terminated before term when the chances are all against the child.

Of the two operations, vaginal and abdominal Cesarean section, everything being equal, the former would give the child equal chances and the mother considerable advantage, both from standpoints of primary mortality and secondary morbidity.

Premature Separation of the Placenta.—There can be no question as to the merits of vaginal Cesarean section in severe cases of hemorrhage following premature detachment of placenta when the cervix is closed or rigid and the woman is becoming exhausted from the loss of blood.

Kerr, who could not predict the future of the operation in other affections, believes that its great place will be in this type of cases and that it will supersede hysterectomy.

Holmes believes that if ablatio placentæ is complicated by a rigid cervix that good results will follow an abdominal section. As a rule, manual dilatation will be sufficient in these cases, since the cervix is usually soft. There is no question but that vaginal Cesarean section possesses distinct advantages over abdominal section and is decidedly less mutilating. Furthermore, it is a safer operation when it becomes necessary to operate away from an equipped operating room.

Heart and Lung Complications.—The value of the operation in edema of the lungs, heart complications, the pre-eclamptic stage, can hardly be discussed in a general way.

It will seldom be necessary to resort to incision, but in critical cardiac disease, when the strain of delivery is dangerous, a rapid delivery under anesthesia will be frequently justifiable.

As a method of delivery in case of sudden death of the mother when the child is to be given a chance, the operation is ideal and will often be allowed by the relatives when they might decline to permit an abdominal section.

Technique of Vaginal Cesarean Section.—As a preliminary to the operation it must be first determined whether the vagina is sufficiently dilatable to permit of delivery. Manual dilatation of the introitus is usually successful even in primiparæ, but if not effective a perineo-vaginal incision may be made. This consists of an incision four to seven centimeters long in the right lateral sulcus, the upper end commencing not far from the spine of the ischium, the lower end terminating below Bartholin's gland. The wound is sufficiently deep to cut the levator ani. It is surprising how shallow the vagina becomes and how much exposure of the cervix is obtained after such an incision. There may be free bleeding, but it is easily controlled.

The cervix is next grasped by a volsellum and the vaginal mucosa incised in the median line from two centimeters below the meatus to the anterior cervical lip. An incision is next carried half around the cervix.

The vaginal plate is then pushed away from the cervix with

a gauze sponge and the bladder pushed upward behind the symphysis, where it is retained by a retractor. Two forceps are then applied to the cervix, one on either side of the median line, and the cervix is then split upward with strong scissors. The extent of the incision will depend upon the period of gestation. At term the incision should be at least nine centimeters. It is never necessary to open the peritoneal fold.

At term it is best to make a similar incision through the posterior cervical lip. Duhrrsen insists upon the posterior incision as a distinct advantage. A rapid delivery requires ample incisions. If the operator is timid and fears opening the peritoneal cavity the incision is too small to permit the introduction of the hand and causes delay, or the incision may tear laterally when the head is dragged through the pelvis.

Nearly all operators follow Duhrrsen's suggestion and deliver the child by version. He states that if the head is fixed forceps can be applied, but in nearly all instances the head lies above the brim, which contra-indicates the use of forceps. The placenta should be delivered by the Cr  d   method. The cervix should then be closed with continuous catgut sutures and the vaginal incisions sutured with interrupted sutures in order to allow drainage in case of oozing under the flaps.

Duhrrsen advises uterine tamponade as a prophylactic precaution and Bumm has also found it frequently necessary to control atonic bleeding. If the uterus is contracting satisfactorily the tamponade should not be used because of the danger to the sutures when it is withdrawn.

The chief objections urged against the operation are bladder injuries, the danger of extension of the incision and opening into the peritoneal cavity, hemorrhage and sepsis and complications in subsequent labor.

Most of these can be obviated by careful technic. First of all, make ample incisions. Bumm and Liepmann state that in more than 60 cases none were torn beyond the original incision. Moran insists that the danger of infection is no more than that in the use of the tampon, metreury sis, forceps, version or instrumental dilatation.

There has been no detailed study of an exhaustive nature regarding the effect in subsequent labors. Moran collected 11

instances of labor, ten of which were normal, and cites them as proof that rupture of the uterus following the operation is not so likely to occur as has been supposed, owing to the passive state of the lower uterine segment during labor. Duhrssen's series of 248 cases did not show a single case of fatal hemorrhage.

DR. C. N. CHAVIGNY, of New Orleans, read a paper entitled

The Surgery of Pregnancy, Complicated by Pelvic Tumors.

The surgical treatment of pelvic tumors has reached a high degree of perfection, but when we have them complicated by pregnancy, we are dealing with a condition which has, as yet, not been so easily handled. Pregnancy with new growths has been a nightmare, owing to the general belief that so many of the operations have been followed by expulsion of the fœtus prematurely, entailing dangerous complications to the mother. I believe that the time is ripe for the more general practice of the removal of these growths during pregnancy and when required the removal of the fœtus through the abdominal incision by the well-known operation of Porro and Cesarean section. Even to-day this class of operation is done so rarely that they attract much attention.

They occur with sufficient frequency, and are being dealt with more often from a surgical standpoint to-day. My personal practical experience is somewhat limited, therefore in getting together the status of operative work to date I have found it necessary to quote statistics of different operators and clinicians. The merits of forceps and cutting operations in cases uncomplicated by tumors will be properly taken care of in other papers in this symposium. It is not very difficult to grasp the seriousness of this condition when we consider the death rate of mother and child in cases only complicated by strictly obstetrical conditions. According to Zincke, forceps, version and premature labor results in a maternal mortality of 10% and a fœtal death rate of 50%. In the Berlin, St. Petersburg and Budapest hospitals the maternal mortality ranges from zero to 6.5% and the fœtal mortality from 20 to 30%. Leisenwitz, quoted by Davis, in his review of the litera-

ture in Progressive Medicine, says that 73.6% of the mothers were injured to such an extent as to require suture, the injuries including those to the perineum, bowel and bladder. Aside from fracture, the percentage of which he does not give, he found 5.45% of the children had facial paralysis and 1.15% had paralysis of a nerve plexus. Reinaun, Lush, Hirst, Playfair, Nagel and Schroeder all agree upon the seriousness of these obstetrical operations to the fœtus. Again, when we consider the mental state of those infants that live, we begin to realize the necessity of doing abdominal delivery more frequently instead of high forceps in a great many cases. Interference is assigned as the cause of idiocy in 29% of the cases admitted to the Royal Albert Asylum. Down says that in 20% of 2,000 idiots examined by him there was evidence of suspended animation at birth. Summarizing the figures of fifteen authors, Miles F. Porter, in a recent article in the *Journal of the American Medical Association*, finds that the average maternal mortality resulting from high forceps, version, induction of premature labor and expectancy to be 1.14% and the fœtal mortality at 17.3%. Fibroid of the uterus is probably the most serious of the tumors to be found complicating pregnancy. They are usually found located in the pelvic cavity excepting when they become of large dimensions; they then ascend into the free peritoneal cavity. When in the pelvis they become the source of great danger from impaction in the bony wall of the pelvis. Of the three varieties of fibroids the greatest obstacle and danger is caused by the sub-mucous or interstitial variety. It is, indeed, fortunate that women suffering from this class of cases are less liable to become pregnant.

In a service of six years in the colored gynecological wards of the Charity Hospital with Dr. E. S. Lewis I found that sterility was one of the symptoms which was nearly always present in cases of interstitial fibroid. However, when a case did give a history of child-bearing, it was usually of only one child, and that in the early years of the patient's life, which in quite a number of cases was followed by one or two abortions. Pinard, in 13,915 cases of labor, only observed 84 myomata, or 6%. The sub-peritoneal variety, by virtue of their po-

sition, is, I believe, more often associated with pregnancy, owing to the fact that the muscle structure of the uterus is not involved and the fibroid is apart, as it were, from the uterus. Pregnancies are more apt to occur in this class of fibroid, but fortunately they are not of such serious nature excepting when the pedicles are long and the fibroids multiple and of such small size as to allow them to enter the pelvis with the head. Fibroids of the fundus uteri do not give as much trouble as those situated near the neck, for the same reason. It is interesting to note the changes that take place in a fibroid during pregnancy. Again, the variety of fibroid plays a very important part. The interstitial variety are those which usually undergo the most change, which, owing to the congested condition of the uterus, undergoes a like condition, causing a marked softening, with an occasional breaking down of the central portion and in some instances becoming inflamed, causing a very serious menace to the life of the patient. The dangers of fibroids complicating pregnancy, apart from the mechanical interference, are these: Hemorrhage, due to an insufficient contraction of the uterine wall; septicæmia, due to the sloughing of the growth, sometimes caused by twisting of the pedicle, and malignant degeneration. They are a frequent cause of abortion and frequently produce dystocia. The absorption of fibroids during pregnancy is more than likely an error in diagnosis, being more than probably a pus tube or inflammatory exudate. J. H. Carstens, in a recent paper read before the American Association of Obstetricians and Gynecologists, Sept. 22, 1908, made a very exhaustive search of the literature for fibroids complicating pregnancy. His table, which is the most thorough to date, is as follows:

RESUMÉ.

Total number of cases subject to abdominal section.....	498	
Full term (or nearly so).....		117
Recovered	98	
Died	17	
	<hr/>	117
Children living	89	
Children dead	11	
Children not stated	17	
	<hr/>	117

Cesarean section		40
Recovered	35	
Died	5	
	<hr/>	
	40	

Porro		58
Recovered	53	
Died	5	
	<hr/>	
	58	

Not positively stated.....		19
		<hr/>
		117

Pregnant less than seven months, number of cases.....		381
Myomectomy	150	
Aborted	22	
Died	13	
Went to full term.....	85	
Not stated	30	150
	<hr/>	

Causes subject to abdominal hysterectomy sometimes preceded by a Porro, at other times tumor and uterus removed *en masse*. Exact operation not stated.

Total		231
Abdominal hysterectomy, (Porro)	204	
Abdominal hysterectomy, died 19		
Not stated	27	
		<hr/>
	231	

Total number of cases.....		498
Full Term	117	
Less than seven months.....	381	
	<hr/>	
	498	

	Recovered.	Died.
Cesarean section or Porro full term.....	99	18
Myomectomy	137	13
Abdominal hysterectomy, (Porro).....	185	19
	<hr/>	<hr/>
	421	50
Not stated	27	
	<hr/>	

Grand total..... 498

From this large list of cases Dr. Carstens draws the following conclusions:

1. Operations for fibroid tumors during pregnancy are not more dangerous than operations without that condition.

2. Operation during pregnancy is indicated in fibroids of the lower uterine segment, and should consist of enucleation of the tumor only.

3. Cases of fibroids at the fundus can be allowed to be undisturbed unless rapid growth will cause interference with the functions of life.

The frequency of conception in cases of ovarian neoplasm is not certain. T. Renz found that in 257 women with tumors 321 pregnancies occurred, with 266 normal deliveries. A. Martin, in 36,158 patients, established 4,948 with ovarian disease and in only 65 cases, about 1.5%, was pregnancy present at the same time. The frequency of the different varieties occurring are as follows: Cystoma, dermoid, carcinomata, fibromata and colloidal. Jetter collected 166 cases, which he classifies as follows: Cystoma 97, dermoid 37, carcinoma 11, uncertain 21. McKerron collected 107 cases, in which the nature of the tumor was stated as cystoma 47, dermoid cyst 46, malignant 9, fibromata 5 and colloid cyst 2. The danger of ovarian cysts complicating pregnancy other than mechanical obstruction of the fœtus are rupture of the cyst, twisting of the pedicle followed by inflammatory changes, peritonitis and oftentimes sloughing; this accident has occurred in 9.1% of the cases (Dsirne) and, by Freund in a series of 200 ovariectomies, found 37.5%. The tumor by direct pressure over the intestines may cause obstruction.

states that benign tumors are apt to become malignant during pregnancy. This opinion is, however, disputed by Lobelein, who believes that the ovaries are in a state of quietude during pregnancy. The increased blood flow causes the growth of the tumor. This view is the one generally accepted. Dermoid cysts, because of their tendency to suppurate and adhere to the surrounding structures, during pregnancy is an often fatal complication. They also grow more slowly and remain in the pelvis longer than any other cysts. They are more liable to malignant degeneration and infection. These peculiarities make them the most dangerous of ovarian cysts to deal with during pregnancy. Sarwey found cancer of the uterus occurring in pregnancy about 1/2000, and usually between the ages of 30 and 40. In the majority of instances the disease had made its appearance before pregnancy, the growth of which is stimulated by the pregnancy. Abortions have been noted in about 30 to 40% of cancer cases. In 603 cases collected by Sarwey the mor-

tality at the time of labor or during the puerperium was 43.3%, 8% dying undelivered. Orthmann, in 116 cases of carcinoma treated in his clinic, found 6 cases of pregnancy, or 5.7%, to have occurred. Conditions of the tubes, hydro and pyosalpinx are very rare; women suffering from these afflictions when of sufficient size to cause obstruction do not become pregnant, and when small accumulations occur they are usually absorbed, not interfering with the delivery.

Of the complications which are not strictly within the domain of this paper, but which I will mention for completeness, are congenital displacement of the kidneys within the pelvis. This condition, although rare, occurs with sufficient frequency as to be of interest to the obstetrician as a probable cause of dystocia. Henry Morris pointed out that this abnormality is present in about 1 in 1,000 persons. Pedunculated gall bladder is a possible cause of obstruction. I could find no record of any cases complicating pregnancy. A case operated on by me at the Charity Hospital is of interest, although the patient was not pregnant. The gall bladder was so pedunculated as to be lying in the right sacro-iliac fossæ. The case was mistaken for an ovarian cyst, which was only diagnosed after operation and 14 large stones removed. Vesical calculus, appendicitis and carcinoma of rectum are rarely found as a cause of obstruction.

The diagnosis of pelvic growths during pregnancy is often attended with great difficulty, because we are dealing with a double condition, which are very often mistaken for one another. It is not an uncommon occurrence for men of experience to open an abdomen for the removal of new growth, only to find their patient to be pregnant. We should, therefore, be extremely cautious in expressing ourselves lest we might err. The course of treatment which we should follow is clearly mapped out. We are all familiar with the endurance and surgical resistance of a pregnant woman. All of us who have had dealings with pregnancy know how well these patients stand anesthetics, and especially chloroform, when found in extreme conditions of exhaustion from prolonged labor or greatly weakened by eclamptic seizures. From my observation I am inclined to look upon pregnant women as being as favor-

able, if not more so than non-pregnant women, for surgical intervention and general anesthesia, making pregnancy not a thing to be feared in gynecological surgery. A glance over the reported cases in the literature will, I believe, prove this statement. In 146 cases tabulated by Augler, there were found 4 deaths due to operation, a mortality of only 2.7%, a result difficult to surpass in ovariectomies uncomplicated by pregnancy. Pregnancy was interrupted in 32, or 22.5%. Bovee reports 38 cases of removal of both appendages with one death followed by abortion in only 4 cases, or 12.6%. Olshauser, in 82 cases, found a mortality of 9.8%. In Dsirne, 135 cases, a mortality of 5.7% is recorded.

On the other hand, the expectant treatment has shown a much higher percentage of death, both foetal and maternal. Williams, in 461 pregnancies complicated by ovarian cyst, found premature labor or abortion to occur in 58. Renz, in 321 cases, found 55 cases to terminate by miscarriage. Hyberg reports 271 ovarian tumors complicating pregnancy not operated on, in which over one-fourth of the mothers and two-thirds of the foetuses died. I have already quoted J. H. Carstens' conclusions with reference to fibroid operations. In view of these figures, are we not justified in our statement that it is more dangerous to allow these cases to go on unoperated than operate upon them? I must answer, treat your case surgically. The time for operation is divided into two classes; the one before the foetus is viable, that is, before the seventh month, and the other after the seventh month, when the foetus is certain to live.

In the first class of cases, when ventral section is necessary, remove the growth and allow pregnancy to continue, since abortion occurs less frequently after removal than when left alone. Those cases which are seen after the viability of the foetus should be allowed to run a full pregnancy, when the tumor could be removed and the child delivered through the abdominal incision by Cesarean section, and if the uterus is greatly involved perform a hysterectomy, which, I believe, will be more and more adopted with the advance of modern gynecology. Small tumors, which by reason of their size and position do not cause obstruction, inflammation or danger of pedi-

ele twisting, should be treated expectantly. The tapping of an ovarian cyst through the vagina is a practice which cannot be condemned too strongly. A choice of routes for operating on these cases is one that is open to discussion, which really narrows itself down to the position of the growth and the individual fitness of the operator, some being more experienced in the vaginal route, therefore preferring it, while others favor the abdominal route, excepting when the growth is actually bulging in the vagina and carcinoma of uterus. My experience in abdominal work has made me incline to this route wherever same is feasible in preference to the vaginal operation.

DISCUSSION OF PAPERS OF DRs. WILLIAMS, LEWIS, CLARK, MILLER
AND CHAVIGNY.

DR. LOUIS PERRILLIAT, of New Orleans: In discussing these papers, of course, the value of abdominal and vaginal Cesarean section is the subject which is of paramount importance to the general practitioner. At the meeting of the American Medical Association held in Chicago last spring a symposium of this nature was read on vaginal and abdominal Cesarean section. The papers were written by men who were not only professors and surgeons, but experts in this particular operation, both abdominal and vaginal Cesarean section, and the statistics they gave were compiled from the work of such experts. For instance, take the mortality of ante-partum eclampsia. We know that when left untreated or treated by the old palliative methods the mortality runs up to between 60 and 70% for the mother. Now, the mortality of ante-partum eclampsia treated by means of vaginal Cesarean section has been reduced to 25% in the hands of experts. The question comes up, is a man who has not got this expert ability—and in that class you find not only the general practitioner, but the general surgeon or the gynecologist who does not devote himself to this particular kind of work—would not the mortality in the hands of one who has not this expert ability be so high as to be an argument against the operation? I believe if you can get the patient into the hands of an expert that patient has a better chance—the mother and child, also—than if you left that patient under the old treatment. So that the argument I make is not an argu-

ment against the value of the operation, but an argument against the performance of the operation at random by everybody. The operation is one which can only be of low mortality in the hands of a man of expert ability.

Now, as to the question of the performance of abdominal Cesarean section in cases of flat pelvis and other deformities of the pelvis which cause a diminution in the true conjugate diameter of the pelvis, it is extremely difficult to tell. They all admit that nobody is able to tell beforehand whether a patient can give birth to a child or not, even in cases where the anteroposterior diameter of the pelvis has been below the limit fixed time and again before the different congresses of obstetricians. Now, with a true conjugate diameter of 7 c. m. you have what has been termed by common consent a borderline case, which means a case that ought to be submitted to the test of labor. The patient might deliver herself, and then again she might not, and nobody can tell. A true conjugate diameter of $6\frac{1}{2}$ c. m. is regarded as a positive indication for interference. Now comes the importance of a method that we have almost completely neglected in this part of the country—that is, pelvimetry. In this city I know positively that there are not five men who carry a pelvimeter in their bags. And although pelvimeters are used in the Charity Hospital, the measurements are taken in a perfunctory way and no consequence is attached to the measurement of the patient. Now, here is where we can do the greatest good, and that is in prophylaxis. If we measure a patient in the thirty-fourth week and find that that patient has pelvic diameters diminished below a certain point, then we should be prepared to interfere. If we interfere and do an abdominal Cesarean section before labor begins the mortality is only about 1.5%.

DR. P. B. SALATICI, New Orleans: In connection with the paper of Dr. Chavigny, I would like to mention two cases which I have had the pleasure of assisting at the operation: 1. Case of a young woman, pregnant about four months, a diseased appendix and pus tube on right side were removed; patient went to full term and delivered without any trouble. 2. Case of multiple sub-peritoneal fibroids; these were removed, patient was delivered at full term of a live child.

DR. LEWIS (in closing): I am sorry my friend, Dr. Perrilliat, was not present when I read my paper. With regard to vaginal Cesarean section, I think it is a very valuable operation in selected cases, such as those that were indicated by Dr. Miller. In certain cases of eclampsia it enables us to operate rapidly and with less repulsive features than by the abdominal operation route. Another condition—and it is the only one that I can recall in my experience where the operation was necessary—was in the case of a woman who came to me from the country with a still-born seven months' child. I waited several days, as generally the uterus is sufficient to effect the expulsion of the fetus, as there was no cause for any immediate interference. No pains occurring, I decided to bring on labor. I dilated the cervix with forceps, went through all the usual means for that purpose, even under chloroform, using large graduated bougies, packed the uterus with gauze twice a day, and all with no result. I tried this for two or three days. A little fever developed, and I finally concluded that I would quickly deliver. Under an anesthetic, in a very few minutes I performed vaginal Cesarean section, and was surprised at the ease with which it was done. I do not believe it requires any great degree of skill for its performance. You simply put the woman in the lithotomy position, introduce a speculum, seize the cervix with volsellum forceps, make an incision in the vaginal roof, either crescentic or longitudinal, peel the bladder away (the connective tissue being very loose), and then with a pair of scissors incise up longitudinally, which enables you to perform a version. There were no after effects. The suturing is easy, because the uterus, being movable, can be brought right down to the vaginal surface. I think it is as easy an operation as the classical Cesarean section.

DR. CLARK (in closing): Dr. Perrilliat brought up the point that abdominal Cesarean section required a surgical expert. My impression of this operation may be wrong, but the cases in which I have been associated impressed me with the extreme simplicity of this operation, and I do not believe it requires any great expert to do this work. I believe that any man who has a right and has the facilities to do an ovariectomy has a right to do an abdominal Cesarean section.

A thing that seems to be absolutely neglected is the morbidity of the mother and the morbidity of the child. The child never seems to be mentioned in these cases, no matter whether it is a paralytic or an idiot. Just so it is born living, well and good; or if the mother does not die well and good. They do not consider the future condition of the mother or the child.

My experience with vaginal Cesarean section has been limited, but I was impressed with this fact, that it is not so extremely simple a procedure as Dr. Reuben Peterson in a recent article tried to bring out. He argued that it was within the reach of every man who had had some slight surgical experience. I think for a man to do vaginal Cesarean section it is necessary for him to serve a long apprenticeship in vaginal work.

With reference to the paper of Dr. Chavigny, I had one case in which I removed an ovarian cyst (pedunculated) in a woman three months pregnant, and she had no trouble.

I do believe the time is coming when the child will have to be considered more than it has been up to the present time. I am not advocating resorting to Cesarean section and cutting every woman's belly open that has a baby, but I do believe that indications arise where it is clearly indicated, and I think we should try to educate ourselves to the point where we will recognize these indications and recognize them early enough. Certainly we are not in line with other parts of the country that are recognizing the value of surgery in complicated obstetrics.

DR. E. M. ELLIS, of Crowley: It was my privilege three years ago to witness four abdominal Cesarean sections in Chicago by Drs. Holmes, Reese and Martin, and I heartily agree with Dr. Clark as to the simplicity of the operation. It did not seem to take them more than fifteen or twenty minutes, and when it was all over the child and mother were in good shape. All those cases were done prior to or at the beginning of labor, because the previous history had forewarned the physicians that they were dealing with contracted pelves and could not deliver a living child. They had delivered each one of these women by a high forceps operation. They put it up to the mothers, telling them that if they would submit to Cesarean section they would

deliver them of a living child. The mothers gladly submitted. I believe that any man who can do a laparotomy can do a Cesarean section.

DR. MILLER (in closing): My closing remarks will be along the line of the technique and safety of this operation. I think the chief advantage of vaginal Cesarean section is that it can be performed in the patient's home under circumstances that would not justify the abdominal operation. We must not lose sight of the fact that many serious obstetrical operations are practically emergency surgery, most of which are to be attempted outside of equipped institutions. The first vaginal Cesarean section I performed was undertaken at the home of the patient under rather adverse surroundings, and was entirely satisfactory. It is an operation any physician can perform who has had a fair experience in vaginal plastic work. I believe it is safer for both mother and child than a hurried high forceps delivery by an inexperienced man.

The fear of uncontrollable hemorrhage after this operation is not justified by statistics. Duhrssen is responsible for the statement that not a single case of fatal hemorrhage is recorded. Hemorrhage from the cervical incisions such as are produced in these cases can usually be controlled by traction on the cervix. This is explained by the arrangement of the blood supply of the lower segment. I have seen traction effectual even in free post-partum bleeding.

One point of special advantage is that the incision should be long enough to permit manipulations and delivery without tearing the angle of the incision.

Bladder injuries are frequently mentioned as one of the grave complications likely to occur. Such complications occur much less often than one might imagine. After weighing all the dangers, advantages and disadvantages, it is difficult to reach any other than a favorable conclusion regarding the value of the operation.

DR. CHAVIGNY (in closing): My own personal experience with this line of work, pregnancy complicated by fibroid tumors, has been very, very small, and the point I wanted to bring out is this: I believe we have reached the stage in gynecological

surgery where we ought to take up these cases more than we do. Why is it we do not get the surgeon in these cases? It is either because the cases are not recognized, or that the practitioner, or whoever the person is that has the case in charge, has a fear of operating on cases that are pregnant. Now, as I stated, the percentage of abortions occurring in those cases is very small, and this certainly is a subject that ought to be taken up and the profession taught that pregnancy is not a barrier to successful operations on tumors.

As to Cesarean section, why, it is such a rare operation here that when one is posted at the Charity Hospital everybody comes to see it. I believe the time is coming when it will be done more frequently.

DR. W. E. SISTRUNK, of Lake Charles, La., read a paper entitled

Curettage: Its Abuses and Indications.

We all know the good which may be derived from curettage of the uterus in certain cases. It is not my intention in this paper to say aught against this operation when it is done in these cases, or when done with a fixed purpose in view, but I wish simply to call attention to the fact that this operation is frequently done in cases in which, when performed alone, it cannot possibly be expected to effect a cure.

My attention was directed to this fact while collecting a large number of detail gynecological histories. These histories were collected from the cases which were under my care while an interne in the gynecological service of Charity Hospital of New Orleans in 1905, from the cases seen in the private practice of Dr. C. Jeff Miller of New Orleans while acting as his assistant in 1906-7 and 1908, and from the cases which have occurred in my own practice. In a fair number of these cases a history was obtained from the patient of her having been subjected to from one to several curetments with no relief, the disease still persisting, and finally causing her to seek relief from a different source—they at last falling under the cases mentioned above. After a careful examination and a diagnosis had been made in these cases, it was plainly evident in

many of them how utterly impossible it was to have expected a cure for the condition from such a line of treatment.

The conditions giving the symptoms for which the curettage had been done were largely these: Fibroids of the uterus, cancer of the uterus or cervix, ovarian disease, tubal diseases, lacérations, displacements, extra-uterine pregnancy and diseases of the heart.

Let us glance for a moment at the symptoms which most often prompt the performance of this operation, i. e., uterine hemorrhages, dysmenorrhea, leucorrhea and amenorrhea, and then run over in our minds the great number of diseases which may cause them. Howard Kelly, in his new *Medical Gynecology*, gives no less than 24 different causes for uterine hemorrhages alone. If we take the trouble to run over this one list of conditions even, and see how few of them are benefited by the operation of curettage when performed alone, we are able to appreciate more thoroughly the importance of the necessity of making a diagnosis of the disease causing the hemorrhage before attempting to cure its symptoms by a simple curettage, and, also, may more readily understand how easily the operation may be abused unless this diagnosis has been made.

When we look for a reason for the reckless manner in which this operation is sometimes performed, I think we will find that the first factor to be considered is the fact that, either through inability or carelessness, a true diagnosis of the condition has not been made. Another reason, I think, is the ease with which the operation is apparently done. Almost anyone will do a curettage—even men who profess “never to do surgery.” Naturally, they are not in a position to make a true diagnosis as well as men who are constantly doing this class of work, and they allow themselves to operate for symptoms only, with no definite idea in view—simply trusting to luck that a curetment will cure the condition. I think also that, though it seems rather mean to say it, the fact that it is a simple operation, but still that it has sufficient gravity with the laity to demand a fair fee, is one reason why it is done by some men who would otherwise refer the case to a more competent man.

It is hardly necessary to mention the fact that it is generally known now that up to a few years ago many deaths were

caused by the use of the sharp curette in septic abortions. Such a procedure, in this class of cases, opens up the lymphatics and leaves a large raw surface exposed to an already existing infection. Still, cases of this class have fallen under my observation within the last two or three years, in which curettage has been done, not only once, but, at times, every few days.

I wish also to mention here the routine which some men have of curetting the uterus before nearly all gynecological operations on women. While this cannot be condemned so severely as the use of it in the above-mentioned cases, on account of the fact that the patient is already undergoing the dangers of an anesthetic, etc., it is often a useless procedure—done without reason and merely as a routine. This procedure carries with it not only the possibilities of a rupture of the uterus—and we know that this occurs sometimes in the hands of some of our best gynecologists—but it causes delay in the operation, on account of the necessity of a second preparation of the operator's and assistant's hands and, frequently, a change in the position of the patient.

Then, too, advantage of the knowledge of this fact may be used by intelligent women in order to rid themselves of a fetus. One case of this kind has fallen under my own observation—an intelligent white woman with a slight laceration of the perineum. She had refused operation for this until she became pregnant—then came to one of the most prominent gynecologists in New Orleans for an operation. He curetted her before doing the perineorrhaphy. She afterwards confessed to me that a doctor whom she had gone to and asked to produce an abortion upon her had refused to do this, but had thrown out the hint to her that it was customary for gynecologists to do a curettage before nearly all operations on women. This hint was the cause of her having had it done.

When one takes the trouble now to follow a good gynecologist in his operative work and notices how seldom he performs the operation of curettage per se, I think that he would be impressed with the fact that not nearly so much is to be expected from curettage, when performed alone, as is generally supposed. In fact, it requires, in many cases, much experience in order that a diagnosis of a condition which needs a curettage alone may be made.

The operation, in my opinion, is done by the best gynecologists now largely for the following class of cases, and it must be remembered that the operation is not always done in the same manner in all of the cases, but that it is altered to suit each particular class of cases:

1. As a preliminary to other gynecological operations in cases in which the uterus, through a primary existing disease, has become secondarily affected; that is, in cases of chronic metritis and chronic endometritis, which are present as secondary troubles and which have been caused by other conditions, such as lacerations, retro-displacements or long-existing gonorrheal infections. In this class of cases a curettage should be done, but no permanent good is to be expected unless the primary trouble is also corrected at the time of the operation.

2. In cases of acute and chronic endometritis and chronic metritis existing as primary conditions. In my opinion, these cases are comparatively rare.

3. In leucorrhea resulting from chronic endocervicitis or from lacerations of the cervix. These cases of chronic endocervicitis are frequently the result of gonorrheal infections, and the curettage must be done with an idea of thoroughly scraping the cervical canal, and, as the infection in such cases is a deep one, little can be expected unless the curettage is a deep one and the cervical glands broken up. It is followed by the application of strong solutions of silver nitrate, pure carbolic acid and alcohol or, better still, the actual cautery.

No permanent good can be expected in the cases of leucorrhea caused from lacerations of the cervix unless the laceration itself is repaired at the time.

4. Incomplete abortions. If the cases of this class are having no temperature and are presenting no symptoms which would cause one to suspect infection, an ordinary curettage is done, but, if the case is a septic one, the procedure is different. In these latter cases, after having thoroughly dilated the cervical canal the membranes are torn loose from the uterine wall with an ordinary abdominal sponge holder. If possible a finger is pushed into the cavity of the uterus, and, with the other hand on the fundus to steady the uterus, all remaining membranes are located with the finger within the uterus, and

as located are removed with the sponge holder. Frequently gauze wrapped around a uterine dressing forceps and swabbed around the uterine cavity with a rotary movement will be of great assistance in clearing the uterus of the smaller particles of membrane. No sharp curettage is used. The uterus is then thoroughly irrigated, and knowing that it no longer contains placental remains it is left alone. No subsequent irrigation of the uterus is practiced—vaginal douches alone being given.

5. In sub-mucous fibroids (polypi).

6. In membranous dysmenorrhea. In this class of cases it is often necessary to repeat the operation from time to time.

7. In cases of sub-involution of the uterus.

8. In cases of sterility, in which the existence of other uterine diseases and diseases of the adnexia have been ruled out, and only after an examination of the husband has been made and live spermatazoa have been found in his semen. In this class of cases the dilatation is of more importance than the curettage.

9. In dysmenorrhea in young women who have small, undeveloped uteri, which are generally ante-flexed. Here, too, the dilatation is of much greater importance. Sometimes as long as 20 or 30 minutes are spent in slowly, but thoroughly, dilating the uterine cervix. Little can be promised in this class, however, for, in the majority of them, the condition remains unchanged and little relief comes to them until they have borne children.

10. In inoperable cancer cases. The operation is done here not with an idea of curetting the endometrium, but simply to scrape away the cancerous masses, thus removing septic material which is constantly poisoning the victim, and relieving the excessive hemorrhage from which they suffer. It is frequently followed by the actual cautery, or by strong solutions of zinc chloride.

11. In a few other conditions, which are rare, and which do not need special mention here.

DISCUSSION OF PAPER OF DR. SISTRUNK.

DR. S. M. D. CLARK, of New Orleans: About four or five years ago, before the State Society, I was seized by the same spirit that prompted Dr. Sistrunk's article, and read a paper

on this subject. I was impressed then with the needless use of the curette, and am still so impressed. Every year, in beginning the men in gynecology, I try to bring out and impress upon the class not to be professional curetters, and to guard against the "fifty dollars easy made."

There are two points that I did not hear Dr. Sistrunk bring out. First, the curette is a very valuable agent as a diagnostic measure. In cases of obscure hemorrhage, I think it is absolutely necessary that we have microscopic examination made of the scrapings. Second, we should guard against using the curette in cases of ectopic gestation. These are cases in which we are very liable to fall into error. A woman having hemorrhages from ectopic can be easily mistaken for an incomplete abortion, and we would run great risk to curette such a case without being sure of our diagnosis.

I think it is a fine thing every few years to have ourselves jolted on this subject, so that we can keep ourselves in check on the "fifty dollars easy made."

DR. C. JEFF MILLER, of New Orleans: Dr. Sistrunk's paper is entirely in accord with my own experience. I have long since reached the conclusion that no surgical operation calls for more discrimination and is so frequently done without the proper indications than curettage. A simple diagnosis of endometritis is too frequently made without an effort to arrive at the specific cause of the trouble. A uterine discharge is not sufficient grounds upon which to urge curettage. Proof of this is the fact that we meet with more disappointments after this operation than from any other recognized procedure in surgery, except in selected cases.

Chronic tubal disease, pelvic adhesions, gonorrheal infection, and infections following abortions furnish the greatest number of cases in which curettage is ineffective. Such cases come for operation and relate a history of one or many curettements, yet I cannot recall a case actually cured by curettage alone. Curettage in such cases is only a preliminary operation.

DR. C. N. CHAVIGNY, of New Orleans: In regard to curettage, I had a case recently which illustrates the point Dr. Clark just brought out. A lady came down from the country during the Carnival for the express purpose of having an abortion per-

formed, and she saw me about two weeks after she had supposedly had an abortion performed. She was having very profuse hemorrhages. She had no fever, and no mass could be detected. She simply had what appeared to be a metrorrhagia following abortion. I sent her to one of the hospitals here and operated on her. But she improved very little from the hemorrhages. About a week or ten days after going to her home a doctor up there told me she was suffering with intense pain on her right side. This went on for ten or twelve days, when finally I told him the best thing he could do was to send her down to the city. I put her in a hospital here, and, much to my surprise, I then felt a mass. I kept her in the hospital about ten days before I operated. When I operated on her I found an extrauterine pregnancy of about six and a half months. It looked as if it had ruptured. I could not determine definitely whether it had ruptured or not, but the sac was adherent to the posterior wall of the pelvis. She recovered. This case shows how easy it is to make an error, and the possibilities of overdoing curettement.

DR. LIONEL L. CAZENAVETTE, of New Orleans, read a paper

Uses of High Frequency Currents in Skin Diseases.

There are several methods employed for the application of the high frequency current in the treatment of diseases. They are known as the conductive, the condensation, and the local or monopolar methods. That which concerns us mostly here is the local method.

Contrary to all other varieties of indirect currents, the monopolar method of application is possible because of the very high tension of this current and the tremendous rate of its vibratory impulses.

When applied over large surfaces the high frequency current is the best stimulant at our command. It affects the circulation by causing a contraction of the arterioles and thereby increasing the blood pressure. There is an increased amount of blood to the surface, which naturally promotes the func-

tions of secretion and excretion. When applied to smaller surfaces there is first noticed a blanching of the surface, due to the contraction of the blood vessels. This is soon followed by a reaction: a relaxation and dilatation of the blood vessels and a subsequent hyperæmia.

Besides this, there are sedative effects on the sensory end-organs, resulting from the electrical bombardment which is a part of the current. This, at times, may amount to local anæsthesia.

The effects which are more noticeable and of greatest value therapeutically are, as previously mentioned, those on the blood vessels and on the tissues themselves (the skin.) The latter, when submitted to a series of sparks from the high frequency current, become disorganized and even destruction may take place, depending upon the kind of sparks and the duration of their application. The stimulation, increased blood supply and destructive local effects combined on the skin render the High Frequency Current a valuable therapeutic means to promote absorption of certain products the result of diseased condition.

The local effects will vary according to the quantity, quality and length of the sparks used. The small sparks, those no longer than $\frac{1}{4}$ inch, cause a sensation of warmth when applied, and produce irritative effects varying from a hyperæmia to a slight inflammation.

The longer sparks, varying, any way, from $\frac{1}{4}$ inch to one inch or more, act differently. Instead of being composed of a multitude of fine sparks, as above, these become fewer in number, of greater intensity and when concentrated to a limited area cause escharotic effects.

The current is applied to the patient by means of electrodes. They are made of glass tubes which are exhausted to a certain degree of vacuum. They are made to fit a common handle, which in turn is connected to the apparatus by a heavily insulated wire.

These electrodes are of several varieties and are made of different shapes and sizes for convenience of application to various surfaces of the body.

Some are so constructed that the metallic part at one end

projects in the interior of the tube and runs throughout its length. Others have this inside rod ending just about an inch from the metal part outside the proximal end of the tube. These glass electrodes are about 8 or 10 inches in length.

For application over large surfaces it is best to use one whose flat surface will measure at least 2 inches in diameter. For application to the cavities of the body variously shaped electrodes are made. For application to small surfaces and where the effects are to be localized a sharp-pointed electrode is preferable.

When the current is turned on the glass electrode is filled with a beautiful violet-colored stream of light emanating from the tip of the metallic rod inside of the tube, and as the tube is brought near the surface of the body a shower of sparks passes from the outer surface of the glass to the skin of the patient. Though glass is a non-conductor of electricity, the extremely high tension and the rapidity of the oscillatory vibrations of this current overcome this obstacle and allow its passage.

The value of the different shaped electrodes will be appreciated when it is remembered that the intensity of the local effects will depend in a large measure upon which one of these we use. If it is desired to cause only a reddening or hyperæmia of the surface the large flat glass electrode will answer the purpose; when it is desired to cause more intense effect, such as blistering, burning and charring of the skin, the electrode to be used is one whose tip should be no larger than the head of a pin. Thus the whole stream of sparks will emanate from only one small point, and it is surprising with what rapidity the destruction of tissue can be accomplished thereby.

The way these electrodes should be handled when employed in the treatment of skin disease should be mentioned, because this forms an important part of the technique and will help considerably in obtaining different results.

The patient is made to lie comfortably on a couch. The proper electrode is secured to the metal tip or clamp on the handle, which is held in the operator's right hand. The current is turned on. The operator then grasps the glass electrode in his left hand, thereby causing a great part of the current

to flow through his own body. But, owing to the high tension of this current, when the end of the electrode is brought near the part to be affected on the patient small sparks are seen to pass to him. By allowing these to pass through for a while there is produced a slight anæsthetic effect. Now, by gradually lessening the surface of the operator's left hand in contact with the electrode, it will be seen that the sparks passing to the patient become less in number but larger and more intense, until finally, by removing the left hand altogether, the patient receives the full charge of the current.

The high frequency current may be used in the treatment of the following skin diseases.

Lichen, psoriasis, herpes zoster, prurigo, superficial nevi, keratosis senilis, molluscum contagiosum, keloid, cicatrix, epitheliomas, pruritus, mycosis fungoides, alopecia areata, acne, and others

Personally, I have used the high frequency current in the treatment of skin disease at our offices on cases referred for such treatment by Drs. Isadore Dyer and H. Ménage.

I would like to call particular attention to a few diseases where I believe special mode of application is necessary for obtaining good results.

In lichen, psoriasis, herpes zoster and prurigo the high frequency current will be found to be of great advantage. In these conditions the flat surface electrode should be used at a distance of about $\frac{1}{4}$ inch from the surface. It relieves the itching accompanying these conditions and acts favorably on the lesions themselves.

In vascular tumors as nevi, when superficial, it will be found to be of great utility. It is well here to use a pointed glass electrode and to spark to the extent of causing an inflammatory reaction, which destroys the blood vessels. This subsides in 8 to 10 days and leaves practically no scar. If the nevus involves a large area the applications had best be repeated some ten to fifteen days apart.

In keratosis senilis, where it is desired to cause a certain amount of irritation, the high frequency current again answers the purpose admirably. It will give best results when applied with the small end of the glass electrode. The intensity of the local effects necessary will vary with the severity of the

condition; but a marked irritation not to the point of blistering will give good result by improving the superficial circulation.

In alopecia areata a hyperæmia lasting from 1 to 12 hours can be produced when using the large surface electrode, with sparks of about $\frac{1}{4}$ inch in length. This hyperæmia and increased vascular supply to the skin improves the circulatory condition about the hair follicles and thereby promotes the growth of hair. The result will be proportionate to the facility with which this hyperæmia is produced.

In acne a mild stimulating effect, produced by the small sparks from the end of a pointed electrode when applied to the lesion, will improve the circulation and cause a resorption of the inflammatory products, thereby rendering the treatment of this rebellious condition much more satisfactory.

In such benign hypertrophies as warty growth I would like to call attention to the special mode of application. The horny layer of the epidermis covering these growths generally offer considerable obstruction to the passage of the sparks, and when these are applied from the tip of a pointed glass electrode it will be seen that the sparks, instead of striking the growth itself, will jump to the neighboring skin. To avoid this and also to remove the pain of the spark, it is best to moisten the growth with a solution of cocaine, allowing the solution to remain on it for a half hour or so. This renders the epidermis softer and the sparks will then be seen to enter the growth. The long and heavy sparks are preferable, because it is here necessary to carry the local effects to the point of charring.

In epitheliomas, especially those of seborrheal origin, the spark from the pointed electrode carried to the point of burning often serves to eradicate the condition after a single application.

After using X-Ray on cases of epithelioma there is frequently noticed, at the time when the X-Ray reaction takes place, that the borders of the ulcer become indurated. The further use of the X-Ray is not advisable, and just here the high frequency current is of the greatest value. It should be used on these borders with the pointed electrode and the

sparkling carried to the point of causing a burn and thereby destroying the diseased tissues. The crust which forms falls in a few days and leaves very little scar.

In such scarring as results from smallpox and acne the high frequency current has also rendered excellent service by causing a stimulation of the tissues and a resorbent effect of the overgrowth of connective tissue.

In conclusion, I would say that in spite of the fact that the high frequency current has been but recently used therapeutically, the excellent results obtained have proven its great value, especially in connection with the X-Ray, in the treatment of many skin diseases; and I would mention particularly acne, smallpox and acne scars, pigmented areas, psoriasis, epitheliomas and benign new growths.

DR. GUSTAV MANN, of New Orleans, delivered a lecture on the Cancer Problem from the micro-physiological standpoint.

(Ms. not furnished to Publication Committee.)

DR. H. GEORGE F. SPURRELL gave a demonstration of Injected Capillary Blood Vessels in the Monkey, exhibiting specimens.

Orleans Parish Medical Society Proceedings.

President, DR. B. A. LEDBETTER.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans.

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.

DR. HOMER DUPUY and DR. H. D. KING.

Address of Dr. B. A. Ledbetter, Incoming President.

I would, indeed, be false to myself did I fail to confess my deep appreciation of the very great honor that you have conferred upon me. Deep as is my appreciation of this honor, deeper still is my recognition of the responsibility which goes hand in hand with it.

The higher our profession mounts in public esteem the greater laurels it wins, the more enemies do we beget and the more difficulties are strewn in our path, which difficulties can be met, and be met only by unity, concerted action and oneness of purpose.

American brain, American grit and American perseverance, in other words, American medicine, won a greater victory in the hospitals in Cuba by the sacrifice of its blood than was ever won on any battle field. Our people were not slow to appreciate this great victory, and today there is no city in the world which stands more steadfast back of the medical profession than does the city of New Orleans.

As individuals, we may not always agree upon issues that may come before this society, but, personally, each of us possesses the strength and courage to work out his own salvation, but just as there is committed to the priests of God the charge of man's soul and to mothers the moral welfare of the offspring, to us stands committed the bodily welfare of millions, and because we have this great trust to perform we cannot allow criticisms or poison darts to sway us from our paths.

So absolute is my confidence in the loyalty of each and every member of this society, so convinced am I that each and every man will do his full duty, that I am convinced that my task will be an easy one.

Acting as one, one for all, and all for one, there is nothing which the needs of our profession may require that the people will not grant us.

There is not time, there is no effort, there is no sacrifice that I am not prepared to make, to emphasize my appreciation of the honor which you have conferred upon me. It will not be my individual effort, nor my personal work, nor alone the assistance of my fellow officers that will bring success to the new administration, but the oneness of purpose which I know has ever animated, and will ever animate, the members of the society.

I feel that it is but proper that I should call the attention of the society to a few of the many important matters which this administration will have to consider, and I know that in bringing these matters thus to your attention I am enlisting loyal supporting and co-operation.

At the outset, I desire to emphasize that I am simply and solely the presiding officer of the society, prepared to carry out your mandate in everything. The authority of the society rests in you.

In the first place, I must direct your special attention to our domicile. Our membership now largely exceeds the seating capacity of our assembly room. If we are going to carry through our idea of having this society fulfill its proper mission it necessarily follows that we are going to ask for and endeavor to obtain a full attendance at all meetings, and under present conditions we have absolutely no means of caring for our attendance, owing to want of seating capacity.

Besides, our library has outgrown our shelving capacity. Under the wise foresight of previous administrations our library has assumed an importance, not only in quantity, but in quality, and it is an injustice to permit this library to remain a veritable fire-trap. A fire breaking out would do harm beyond calculation, and beyond the possibility of repair.

Of such great importance do I consider this matter I would strongly recommend that a special committee of three be appointed to deal with this question.

I would also direct the attention of the Committee on Scientific Essays to the necessity of maintaining the high standard of the past in every sense of the word, with special emphasis, however, upon the necessity of making the program relatively short, not consisting of more than one or two papers, in order to permit full discussion. I have at various times seen discussions curtailed as the result of the length of the program, and I am very strongly wedded to the idea that no stone must be left unturned to have papers discussed as much as possible, because discussion means mental contact, and it is this condition which produces the most lasting results. And in this connection I would also emphasize that greater efforts should be made to have the members report all their interesting cases.

We must build up our membership—build it up not only in number but in strength and in influence. We have the greatest potential strength of any organization of any character in any community. We should be heard on all public questions in

which the life blood of the community is interested. The public is prepared to stand by us in anything that we support, and the public is entitled to have our guidance and our championship point out to it the right and the wrong in all questions of sanitation and hygiene and in any way directly bearing upon the true province of our society.

Our mission will never be fully carried out unless our meetings are largely attended. Large attendance indicates interest, and interest begets interest. The good fellowship which has always characterized our membership will, I trust and believe, continue in the future as it has been in the past.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The Broadening of Medical Education.

The survey of present medical practice throughout the world presents an interesting field for commentary. Almost all of the earlier archaic practices still prevail in the more remote colonies where savages predominate; in China, outside of the large cities where occidental methods are found, the old reliance upon animal derivatives is still potent.

In the countries considered civilized, multitudes of chemical synthetics and derivatives are now vaunted and in large part employed in the treatment of disease. Sera have been evolved through painstaking laboratory investigations and more are on the way as the study of bacteriologic minutiae becomes more exact.

In the therapeutics of disease, we are still traveling over a troubled sea, tormented by the evils of doubt and opinion, necessary for the final conclusions which must survive.

The practical side in the development of medicine and surgery has shown wonderful advance and the evolution of skill and invention would seem remarkable if it were not parallel with the genius of the age.

The natural reflex of this is evident in the more exact training of the student for the field of his vocation. A superior preliminary intelligence is required before the medical education of to-day is begun, and the scientific inclination is much more essential than ever before in the would-be student. The development of the literature of medicine has demanded a knowledge of the terms and an appreciation of their full definition; it has also required the academic training of the student in the elements of language, as well as in the principles of the sciences themselves.

For so long the profession of medicine occupied an inferior position in the group of sciences, indeed classed below the apothecary and not much above the tonsorial artist, that it has been difficult for it to grow out of its traditions and environments. That this has been accomplished is evident from the recent recognition of some of the fields of medical education in their relation to the higher academic and scientific degrees.

Within the last few years several of the leading colleges have acknowledged the value of investigation in the laboratory branches of medicine and have accorded full credit to these in summing up the merits of a candidate for a doctorate or master's degree. Anatomy and its divisions, physiology, chemistry, pathology, each are held as major subjects in some institutions and may be elected in the group of studies engaged for the work toward a degree.

This is a deserved recognition of the progress in these divisions of medical science and the recognition means a stimulus to scientific work in each of these divisions. It means that the student himself will give more appreciation to the subjects which formerly were held as perfunctory steps toward the more important practical side of medical education.

There is another side in the consideration of this broadening influence of the study of medicine and its branches, which is just beginning to show. This is the abstraction of the purely scientific side of medicine from the practical or mechanical divisions. Now a student engaged in the pursuit of purely academic knowledge may color his education with a selection of periods in scientific study as a part of his training. Anatomy, physiology, pathology and bacteriology may now rank with chemistry and the other divisions of natural science as subjects no longer limited to the field of study of the medical student alone; each or all of these may in time be embraced as electives in a university education, and when this is brought about it will mean the broader intelligence of the educated public, ready to appreciate the motives of medicine and trained to acknowledge the high purposes not only of the science of the Hippocratic calling, but also enabled to follow the fulfillment of the ideals of a humanitarian practice.

The State Medical Society Meeting.

The many problems which constantly arise in the practice of our Southern profession always make the annual gathering of State medical bodies an event in the lives of its members. Not only does the occasion afford the opportunity of a free debate on questions of common interest, but also it provides an occasion for the exploitation of advances in methods applied to the diseases which are current among us.

The attendance at the State Medical Society meetings is never a sufficient expression of the interest which should be elicited, and the JOURNAL takes the position of the herald, announcing the forthcoming meeting to all who value their membership in the State association.

The local profession in New Orleans has already begun the consideration of programme and entertainment, and it is hoped that this year will develop a gathering which will be a record breaker. The meeting is planned sufficiently early in May to allow everyone who is duly notified to arrange to come.

Papers should be prepared so as to present topics of unusual interest and importance, and the programme should be limited so as to cover its numbers during the sessions assigned to each section.

In the hope that all of our readers will keep the memorandum of the meeting before them and that all who remember will come, we trust that the meeting will fulfil the wishes of all.

Bulletin Louisiana State Board of Health.

The State Board of Health has just issued the initial number of its Quarterly Bulletin. Its purposes are stated to be to bring the health officers of the State closer together, to make them more familiar with what the Board is doing and to place before the public as well as the health officers the latest practical scientific views of recognized sanitarians. This number includes interesting articles in the Department of Medical Inspection, the Food and Drug Department, the Legal Department and the Laboratory of Bacteriology; also the quarterly report of vital statistics. Its typography is neat and general appearance attractive. Its publication is a progressive step on the part of the Board.

City Board of Health in New Quarters.

The Board of Health of the city of New Orleans is now located in the Municipal Office Building, an annex to the City Hall fronting on Carondelet street and with a depth of 118 feet on Lafayette street. On the second floor, besides the Board's executive offices, are the Sanitary and Food Inspection Departments and the Department of Vital Statistics. There also vaccination work goes on throughout the year on Mondays, Wednesdays and Fridays for white and on Tuesdays and Thursdays for colored persons. On the sixth floor the Board has its Bacteriological Laboratory, and on the ground floor it has a storeroom for chemicals and the various implements used more especially in its sanitary work.

The bacteriologist of the Board formerly carried on his work in the laboratory of the New Orleans Polyclinic. The Board has been able, with the assistance of the city, to equip at a cost of several thousand dollars its own bacteriological laboratory, which it has named "The P. E. Archinard Board of Health Laboratory," as a lasting recognition to its bacteriologist, who is a man of international reputation and who has made valuable contributions to science.

This new laboratory, fitted up in the most approved manner, was opened to the public and the medical profession in January, 1910.

The Board in the main uses the card-index system, slightly modified to conform to certain book-forms fixed by law. In recording communicable diseases a pin-and-bead system is used whereby the sanitary status of any locality can be ascertained at a glance. Up-to-date furniture and shallow drawers are used for the reception and retention of indicators. The map of the city has been divided into thirty-one sections, and an additional drawer is used, subdivided, for the storage of supplies. The card unit has been preserved in subdividing the city, insuring seventeen primary accepted divisions. One drawer is entirely devoted to the Charity Hospital, a small-sized fluctuating and important colony in itself. By slightly varying the scale of the squares, each section has been made to occupy a full drawer. For details of individual cases a card-index system of histories, with a cross index by streets and

by names, is used, in which reference to the pins and maps is made by ward and square. The different diseases and their location are indicated by pins having heads of various colors. Red is used for scarlet fever, gray for diphtheria, purple for typhoid, pink for measles and brown for smallpox. On recovery of a case a white bead is slipped under the head of the pin. A black bead is used in case of death. Removal of a case to an institution for treatment is indicated by a blue bead.

The system is of incalculable value to the office, readily picturing valuable information not otherwise obtainable.

The entire installation and methods of the City Board of Health are modern and convenient; they reflect credit upon the Board and its officers.

Abstracts, Extracts and Miscellany.

Department of Surgery.

In Charge of DR. FELIX A. LARUE and DR. P. A. THIBAUT, New Orleans.

We cull from the minutes of the thirteenth meeting of the Society of Clinical Surgery, held in Rochester, Minn., last October, the following:

“Dr. Matas reported clinical and experimental work done at the Tulane University in testing the value of metallic bands in obtaining the occlusion of arteries. He and his associate had set themselves to determine whether the larger arteries could be occluded long enough to observe the effects of the arrested circulation in the territory supplied by the occluded vessel without irreparably damaging the artery during the period of observation. How long could the artery be thus occluded without permanently obliterating its lumen? What is the limit of time that an occluding metallic band can be maintained in position before permanent damage leading to thrombosis occurs in the intima? What are the changes that occur in the vessel after occlusion has been maintained for a certain number of hours or days and after constriction has

been removed? What kind of material is best suited for the compression of the arteries combining the features of tissue tolerance, facility of application and removal with minimum of trauma? To determine these points the femoral and carotid arteries of the dog were used. Dr. C. W. Allen had made 168 experiments upon 42 dogs, but this number was reduced to 43 by infections, deaths and escape of animals. These forty-three may be grouped as follows: In seven the artery was occluded one day; in seven, two days; in fourteen, three days; in eight, five days; in four, five days; in three, six days. In twenty-two cases the vessel and clamp were excised together at the expiration of the stated period, and in twenty-one the clamp alone, the vessel remaining in situ, to be taken out subsequently. After the removal of the vessels the gross and histological changes were noted and photographs showing the seat of the occlusion were made and exhibited. Three forms of bands were used, all about as wide as one diameter of the vessel operated upon: (1) Small silver wire strand soldered at intervals; (2) thin aluminum bands held around the vessel by clamping with a lead clip; (3) aluminum bands stout enough to maintain any degree of compression once fixed around the vessel. The silver wire bands were soon discarded for the aluminum, of these the stouter kind (Nos. 14-16, Brown & Sharpe's sheet-metal gauge), which retain their hold without the lead clip, were preferred. These bands are cut long enough to be used as an aneurism needle, being bent so as to be insinuated between the blood vessel and the sheath. After the end has been carried around the vessel it is compressed between the fingers until the pulse on the distal side becomes imperceptible. The excess of band which remains is cut off. If it should become necessary to remove the band at any time on account of disturbances in the territory supplied by the vessel (e. g., when cerebral disturbances occur after the occlusion of the common carotid) the point of a sharp instrument inserted between the ends of the bands and slightly twisted releases the vessel. In four cases operated upon by Dr. Matas (three of innominate aneurism in which the common carotid and subclavian were occluded with aluminum bands, and in one case of malignant growth of the neck, in which the com-

mon carotid was compressed three days before the extirpation of the artery with the neoplasm), the tolerance of the tissues was demonstrated; in all the bands remained permanently encysted without causing any irritation.

The following conclusions were arrived at: It is possible to compress a vessel to the point of obliterating the pulse and maintain this pressure for from three to four days before adhesive inflammation of the intima occurs. All the vessels clamped in this manner stood compression 72 hours without apparent microscopical change. Some few began to show changes after 96 hours. There is no reason why in occluding the great vessels at the root of the neck, chest, abdomen and at the limbs, in continuity, these removable bands should not be substituted for the ligature, which permanently damages the artery. Furthermore, the ligature does not permit of the release of the constriction after a few hours or days of observation without almost certainty of thrombus formation at the seat of the ligation.

Many of the questions had been answered by the admirable work of Halsted and Crile and some of the older workers, but the possibilities of provisional total occlusion with buried and yet removable material—which could accomplish the temporary occlusion of the artery without damaging it—had justified, the speaker believed, the present investigation.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

DOPTER gives the following data to show differences, in a general way, between bacillary and amebic dysentery:

BACILLARY: 1. In the early stages widespread catarrh with swelling of the mucosa. a few bacilli and no ameba. 2. Progressive necrosis of the mucosa extensive. Submucosa thickened, edematous, and with a phlegmonous appearance. Many bacilli. 3. Broad superficial ulcerations affecting only the mucosa. Edges irregular, flat bases with purulent infiltration. Bacilli numerous. 4. Ulceration reaches the deeper

layers only in severe cases. Rarely undermined. 5. The process is an acute inflammatory one.

AMEBIC: In the early stages localized catarrh with amebæ but no dysentery bacilli. 2. Localized necrosis reaching into the depths of the tissues. In the submucosa amebæ, containing abscess cavities. 3. "Collar-button-shaped" amebæ, containing ulcers with overhanging edges in submucosa. 4. Ulcerations commonly undermined and commonly reach to the muscular layers. 5. The process is a subacute or chronic inflammatory one.

TREATMENT OF CHRONIC DYSENTERY.—as a matter of routine, my personal experience leads me to recommend in all cases of chronic dysentery a short preliminary course of ipecacuanha—30, 25, 15, 10 and 5 grains on successive evenings, with rest and a milk and barley water diet. Thereafter I generally prescribe a minute dose of castor oil, with or without opium, three times a day, regulating the dose according to effects. I may also prescribe a mixture of simaruba and cinnamon, or some intestinal antiseptic, as salor or Beta-naphthol.—*Tropical Diseases*, Manson, 1903.

COPPER SULPHATE IN AMEBIC DYSENTERY.—W. R. Moulden, from a study of five hundred cases of amebic dysentery, advocates the use of copper sulphate irrigations in the treatment of this form of the disease. The following is the mode of procedure: The buttocks are raised about a foot above the level of the shoulders and the colon is thoroughly irrigated by means of a double-flow colon tube, with sterile water, until the washings are quite clean. After draining off the water, the bowel is slowly filled with copper solution, by keeping the reservoir at first at the level of the anus and then slowly raising it as the gut gets accustomed to the pressure. Such an injection is generally retained for twenty minutes. Two injections are given daily at intervals of twelve hours. Before this procedure, at 2 a. m. the patient is given 50 c. c. (about 1½ oz.) of a saturated solution of magnesium sulphate, in order to clean the gut. It is advantageous to use very hot irrigations, 106 to 110° F. The strength of the copper solution should not be greater than 1/6000.—*Medical Record*, July 28, 1906.

SCHEUBE PREFERS CALOMEL IN THE TREATMENT OF AMEBIC

DYSENTERY.—“According to my experience, when it [calomel] proved useless, ipecacuanha was given also without results.”—SCHEUBE, *Diseases of Warm Climates*, 1902.

Jackson thinks that the treatment of amebic dysentery by high enemata is the most rational procedure. While placing quinin irrigations above all other agents for the purpose, he accords to enemata with copper sulphate solutions an important place.—JACKSON, *Tropical Medicine*, 1907.

NOTE.—My own experience with ipecacuanha has proved that though fairly effective this drug is not a specific, as I have seen some relapses after its use. In eighteen cases of intestinal amebiasis after the ipecacuanha treatment was given a fair trial and failed, the following treatment was instituted and proved successful: Early in the morning one ounce of magnesium sulphate in solution was given; four hours after, arsenite of copper in doses 1/200 grain was administered every three-quarters of an hour until ten or fifteen doses were given; then every hour and a half until the amebæ disappeared from the stool, irrigations with copper sulphate solution, 1/10,000, at a temperature of 105° F., were given twice daily twelve or fourteen hours apart with the foregoing procedure as long as amebæ were present in the stools.

STORCK.

Department of Ear, Nose and Throat.

In Charge of A. W. DEROALDES, M. D., and GORDON KING, M. D., New Orleans.

INDICATIONS FOR TONSILLOTOMY.—Skrypt, in a paper read before the Russian Oto-Laryngological Congress, discusses the question of the removal of tonsils. The author states that neither from physiology or experimentation can we draw any practical conclusions concerning the removal of the faucial tonsils. Clinical experience, however, has led him to the following views: That tonsils should not be removed unless they are the seat of evident pathological changes; children affected with both tonsillar and adenoid enlargement should

have the adenoids removed first, as this frequently leads to the resorption of the tonsillar hypertrophy; in adults especially care should be taken to avoid hemorrhage, and the general condition of the patient examined for any predisposition in that direction.

After operation the patient should be under the eye of the surgeon for several hours to prevent serious consequences from hemorrhage.—*Revue Hebdom. de Laryngol.*, Jan. 14, 1910.

THE GALVANO-CAUTERY IN LARYNGEAL TUBERCULOSIS.—R. Hahn, reviewing the subject of cauterization in the treatment of tubercular lesions of the larynx, concludes that the use of the galvano-cautery is the method of choice. As advantages of great importance are mentioned: The reduction of tendency to secondary hemorrhage and inflammatory reaction; less dysphagia; diminished danger of generalizing the infection, and rapid reformation of healthy tissue. It should not be resorted to in cases undergoing acute inflammation, in generalized tuberculosis, or where there is a tendency to laryngeal stenosis. The best results are to be obtained in the circumscribed lesions of the chronic type, but sometimes much benefit may be secured even in the advanced cases.—*Archiv. Italiano*.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

The attention of members is called to the approaching meeting, which we hope to make interesting and successful in every sense of the word. In the last issue of the JOURNAL announcement was made of the appointment of Chairmen of Sections and of Committees. Those wishing to make contributions under the respective sections are requested to send titles of their papers to the Chairman of Section selected or to the Secretary, as early as possible.

Officers of parish societies are urged to hold meetings between now and the time of the State Society meeting, to get the affairs of their societies in good shape for the fiscal year.

In the event this has not already been done, Parish Societies

are also requested to make the appointment of delegates at once. Each Parish Society is entitled to one delegate for the first 25 members and one for every additional 25 members or fractional part thereof.

Please begin now and make arrangements for attendance on the approaching meeting. The members from Orleans Parish are just as anxious as ever to make the sojourn of the visiting members pleasant and scientifically interesting.

Further notice will be given of other arrangements as these are made.

Dr. I. J. Newton has been appointed chairman of the Section on Hygiene and Sanitary Science, in place of Dr. Thomas Ragan, declined.

Also, Dr. M. H. McGuire, in place of Dr. Isadore Dyer, declined, as Chairman of Committee on Conference with the Press. Dr. Denégre Martin, in place of Dr. John Callan, declined, as Chairman on Public Policy and Legislation Committee.

To the Secretary of Each State and County Medical Society, and Other Interested Members:

At the last meeting of the American Medical Association at Atlantic City the following report of Committee on Miscellaneous Business was adopted: "The committee recommends that the president of this association appoint a committee of five members to inquire into the desirability and practicability of the establishing under the auspices of the American Medical Association of a fund for the assistance of physicians disabled by sickness and for a sanatorium for the treatment of such members of the association as may be afflicted with tuberculosis or similar diseases; such committee to report to the House of Delegates at the next annual meeting of the association."

As a basis for wise action, the committee urges that the officers of State and county medical societies and others interested in the subject should at the earliest possible date forward to the Secretary of the committee, Dr. A. C. Magruder, Colorado Springs, Colo., answers to the following queries, with some account of any special cases that seem to illustrate the need for provision for disabled members of our profession.

1. Is there any provision by your State Medical Society or local society for the care of destitute and disabled physicians and those dependent upon them? If so, how is such care provided?

2. What number of instances of special need for such assistance (or sanatorium treatment) have arisen in your locality within the last five years and what number of your members need such assistance now?

3. About how many members of your County Medical Society are at present afflicted with tuberculosis or similar diseases, or have, within the last five years died or withdrawn from their professional work on account of such disease?

It is earnestly requested that this matter be brought before each county and State society at its next regular meeting, and that the desired information be furnished our committee at the earliest possible date.

Fraternally yours,

EDWARD JACKSON, Denver, Col.

JEFFERSON R. KEAN, Washington, D. C.

A. T. BRISTOW, Brooklyn, N. Y.

H. B. ELLIS, Los Angeles, Cal.

A. C. MAGRUDER, Secretary,

305 N. Tejon Street, Colorado Springs, Col.

Baton Rouge, La., Jan. 26, 1910.

The annual business meeting of East Baton Rouge Parish Medical Society was held on 12th inst. in the Masonic Building, Baton Rouge. The meeting was well attended and a live discussion of matters of general interest to the profession characterized the session. The following resolution was passed by the society, viz.:

“Whereas it has come to the knowledge of the East Baton Rouge Parish Medical Society that certain druggists of the city of Baton Rouge do habitually prescribe and practice medicine in violation of the laws of the State of Louisiana; therefore, be it

“Resolved, That the East Baton Rouge Parish Medical Society hereby notify the druggists of Baton Rouge that steps

are being taken to accumulate evidence to prosecute to the fullest extent of the law any violator thereof.

(Signed.) "EAST BATON ROUGE PARISH MEDICAL SOCIETY."

A copy of the above resolution was ordered mailed to every druggist in Baton Rouge at once, with the good intention of giving them fair warning. Committee of three was also appointed to draft resolutions of respect to our deceased brother and member, Dr. Harrelson, and of condolence to the bereaved loved ones. Annual election of officers for the year 1910 was held and resulted as follows: President, Dr. J. A. Tucker, Baton Rouge, La.; Vice President, Dr. P. H. Jones, Baton Rouge, La.; Secretary-Treasurer, Dr. J. J. Robert, Baton Rouge, La. The society then adjourned to enjoy a banquet at the Mayer Hotel.

In closing, I take the liberty of asking through your columns of an expression of the opinion and feelings of the various parish and other medical organizations throughout our State in regard to the resolution passed regarding the "cross-counter" prescription business of the druggist.

JAMES J. ROBERT, M. D., Secretary.

The Avoyelles Parish Medical Society met at Bunkie Jan. 6, 1910, with the following members present: Drs. E. L. Mathews, G. L. Drouin, D. B. Davis, H. Buck, Willie Buck, Jr., W. F. Cauvillian, E. Regard, L. C. Tarlton T. A. Roy and R. G. Ducote. Dr. T. H. Roy called the meeting to order and proceeded with the regular business of the meeting. Dr. Sidney D. Porter, the chief medical inspector for the State Board of Health, was to lecture for the members of the medical society on "Pellagra," but the Doctor could not be present on account of a failure to make train connections. We regretted very much that we could not hear the Doctor on pellagra, which is considered a new subject of very great medical importance. We wish to have the Doctor with us at our next meeting, in April, Thursday, 7th, 1910. The committee appointed to draft resolutions in memory of the death of Dr. C. J. Ducote of Cottonport reported, and will later be given to the JOURNAL for publication. Dr. J. R. Ducote of Cottonport

was elected to full membership in the Avoyelles Parish Medical Society.

The retiring president, Dr. T. A. Roy, nominated Dr. E. S. Mathews of Bunkie for president, to serve during this present year. Dr. Mathews was unanimously elected. Dr. H. Buck nominated Dr. D. B. Davis for vice president, who was also unanimously elected. Dr. R. G. Ducote was again elected Secretary and Treasurer. The retiring president made an appropriate lecture, speaking on the welfare of the society. The new officers took their places and made remarks for the good of the society. It was resolved that any member wishing to be reinstated in the society should be made to pay \$8, the regular fee, with their application. Resolved, also, that new members be made to pay \$4 and the fee for the entertainment. Drs. H. Buck L. C. Tarleton and T. A. Roy were appointed a committee for scientific papers. The next meeting will take place at Marks ville on Thursday, the 7th day of April, 1910.

R. G. DUCOTE, M. D., Secretary.

East Feliciana Parish Medical Society. The regular February meeting of the East Feliciana Parish Medical Society was held in Clinton at the office of the Secretary-Treasurer, Dr. R. P. Jones, on Wednesday, Feb. 2. Owing to the bad weather the attendance was not as large as usual, but the faithful few who were present considered it the most profitable meeting ever held by this society. Dr. C. C. Bass of New Orleans was present and demonstrated the practical use of the microscope to the general practitioner. Hookworms received the usual amount of attention, while the simplest and easiest way of staining, mounting and identifying the more common bacilli was shown by Dr. Bass. Each member brought his microscope and was greatly benefited by the individual instruction. Dr. Bass received a vote of thanks for his visit, and the society hopes to have him return at some future date. The next meeting of this society will probably be held at the Insane Asylum in Jackson, at which time the different phases of some form of insanity will be discussed and the doctors afforded an opportunity to inspect this well-kept institution. This last meeting was terminated with the usual good dinner at the Rist Hotel.

Medical News Items.

OUACHITA PARISH MEDICAL SOCIETY.—At the last regular meeting of the Ouachita Parish Medical Society, Feb. 5, a motion was unanimously carried that the Society request the local papers to refrain from mentioning the name of any physician as a news item, in connection with any professional act.

ORAL HYGIENE COMMITTEE.—On Feb. 13 the Oral Hygiene Committee of the Southern Branch of the National Dental Association held a meeting, and many practical plans were formed during the sessions of this committee. Among them, a plan was adopted for the establishment of oral hygiene headquarters in each State, New Orleans being selected for Louisiana. The annual meeting will take place in Houston, May 4, 5 and 6, and an extensive programme is promised for this meeting.

LOUISIANA STATE BOARD OF PHARMACY EXAMINATIONS.—Out of the thirty-six applicants for admission to the Association, the following were successful: L. F. Birdsong, Richard Chargrois, Geo. D. d'Autry, Guster H. Taylor, John C. Stumpf, Patrick Harvey, James B. Aucoin, Jacob Hecker. Aurelia B. Kuhn, Arthur L. Landry, W. McNeil, Frank Muccio, Frank Stumpf and Maude Witherspoon.

TROPICAL MEDICINE.—The New York Post-Graduate Medical School is establishing in its new buildings an equipment of wards and laboratories for the teaching of Tropical Medicine. The department is being conducted under the co-operation of the United States Army, Navy and Public Health Services, who detail officers from their respective medical corps to assist in the conduct of the laboratory and clinical courses.

MEDICAL BILLS BEFORE THE MISSISSIPPI LEGISLATURE.—There are five bills before the present Mississippi Legislature in which the doctors are interested, namely: vital statistics; changing the medical practice act so that only graduates can apply for licenses; fixing the salary of the County Health Officers; a large appropriation for the State Board of Health, and the optometry bill.

REPORT INFECTIOUS OR CONTAGIOUS DISEASES.—The Houma, La., Board of Health has notified all the doctors that they must report any infectious or contagious disease within twenty-four hours after waiting on a patient and knowing such disease to be infectious or contagious, in default of which the physician shall be fined accordingly.

REQUIREMENTS ADVANCED.—The Memphis Hospital Medical College has adopted the standard of the Association of American Medical Colleges. All students matriculating after Jan. 1, 1910, must be possessed of necessary educational attainments.

THE SIXTIETH annual meeting of the Illinois State Medical Society will be held in Danville, May 17, 18 and 19, 1910. This is to be the banner meeting. The membership of Vermilion County Medical Society extends us a cordial invitation to attend. In this they are joined by the Commercial Club, the Hundred Thousand Club, the Mayor, the financial, industrial and business interests of the city.

UNITED STATES PHARMACOPEIAL CONVENTION.—In accordance with the provisions of Article VIII, Chapter 1, of the by-laws, the President of the convention invites the several bodies, entitled under the constitution to representation therein, to appoint delegates to the first decennial meeting of the said convention, to be held in the City of Washington, May 10, 1910.

THE ANNUAL MEETING of the American Confederation of Reciprocating, Examining and Licensing Medical Boards will be held in Room L 38, Great Northern Hotel, Chicago, March 3 next, beginning at 10 A. M.—the day following the last day's meeting of the Legislative Committee of the A. M. A. at Chicago. Membership in the Confederation is confined to State Medical Boards, but ex-board members, educators and members of associations interested in the work of the Confederation are cordially invited to be present, and will receive the courtesy of the floor. We acknowledge, with thanks, an invitation to attend.

CLIPPINGS.—Texas has the only woman railroad surgeon in this country, Dr. Sofie Herzo.

The Supreme Court of Missouri has decided that the State Board of Health has discretionary powers giving it the right to make regulations which it deems necessary.

PERSONALS.—Mr. W. W. Finley, President of the Southern Railway, will be the speaker on Founders' Day at Tulane University, March 3. At this time President Craighead will make his annual address.

Dr. Oscar Dowling has announced the suspension of the *Journal of the Southern Medical Association*.

Dr. Chas. Chassaignac, dean of the Post-Graduate Medical Department of Tulane University, made an address in Newcomb Assembly Hall, Feb. 16, on "Pasteur et ses Elèves." The lecture was much appreciated by those present.

Dr. J. B. Kelly, of Alexandria, had the misfortune to lose his office by fire last month.

Dr. Jas. J. Robert, of Baton Rouge, has been commissioned First Lieutenant in the Medical Reserve Corps of the United States Army.

VISITING DOCTORS.—The doctors who visited New Orleans during the past month were: C. S. Minot, Boston, Mass.; C. B. Richmond, Denver; I. F. Sandmeyer, Columbus, Tex.; Wm. Martin; W. D. Bigelow, Washington, D. C.

REMOVALS.—Dr. P. E. Bechet, from Natchitoches, La., to New York City; Dr. C. M. Jarrell, from Olla, La., to Crowsville; Dr. H. A. Hackett, from New Orleans to Meridian, Miss.

DIED.—On January 22, 1910, at Rockwest, Ala., Dr. Raphael Owen Semmes, at the age of 30.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Modern Medicine, Vol. VI, by WILLIAM OSLER, M. D. Lea & Febiger, 1909.

Volume VI treats of Diseases of the Urinary System, Diseases of the Ductless Glands, Diseases of Obscure Causation, Diseases of the Muscles, Vasomotor and trophic disorders and of the medical aspects of life insurance.

Regarding the treatment of acute nephritis and the paroxysms of chronic nephritis, the details of the milk diet, or how to meet the many difficulties we find in practice in ordering the all-important milk diet, are lacking. There is no mention of Widal or Achard's chlorid-free diets, which are of great service in many cases. Again, the discussion of the prevention of nephritis in the stage of convalescence of scarlatina should have appeared, and the same opinion is expressed as to the comparative value in that respect of the old-fashioned exclusive milk diet and the newer chlorid-free diets, and even (the latest view) of the ordinary diet, watching the kidneys, of course.

E. M. D.

Diagnostics of Internal Medicine, by GLENTWORTH REEVE BUTLER, M. D., Sc. D., LL. D. D. Appleton & Co., New York and London.

This is the third edition, revised, with five colored plates and 272 illustrations and charts, of a very good book, a clinical treatise upon the recognized principles of medical diagnosis, prepared for the use of students and practitioners. We suggest that in the next edition the *Uncinaria Americana*, be called, after Stiles, *Necator Americanus*.

E. M. D.

The Sexual Question. By AUGUST FOREL, M. D., Ph. D., LL. D. English Adaptation by C. F. MARSHALL, M. D., F. R. C. S. Rebman Company, New York.

Our Swiss confrère has written under the above caption what he terms "a scientific, psychological, hygienic and sociological study for the cultured classes." Among the latter, no doubt it is intended to include the majority of physicians, as all those who have not made a deep study of the subjects discussed may derive useful information from the book. For many others the scope of the work is too great, as it does not permit adequate consideration of all the topics touched upon in the nineteen chapters.

We cannot agree with him on some points, notably on the harmlessness of anticonceptional methods. He is inconsistent, moreover, on this point. On page 426 he says: "They render marriage possible for people, when the income is not sufficient to support a family"; yet, on page 433,

he claims "healthy men and women ought never to avoid reproduction, even when they are poor."

All told, however, it must be admitted that he has treated his subject scientifically and interestingly. C. C.

Practical Dietetics. By W. GILMAN THOMPSON, M. D. New York and London, D. Appleton & Co., 1909.

From the inception of this work in 1895, it has been the aim of its author to keep it abreast of the improvements in modern dietetics. In the dietetic treatment of many common diseases, much improvement has been made, as, for instance, in chronic nephritis, diabetes, typhoid fever, intestinal autointoxication and the gastro-intestinal disorders of infancy and childhood. This is so true that the author has deemed it necessary to rewrite the present edition and to make considerable additions. It is also to be noted that forty-two new illustrations lend added value to the work.

The author disclaims advocacy of any special dietetic theory or "system." "No one food is curative of any disease, just as no one food may be said to be causative of any disease.

Of vegetarianism, his teaching is eminently sound. He says: "In regard to an exclusive vegetable diet for civilized man, the universal experience has been that, while it may keep him in apparent health for some time, it eventually results in a loss of strength and general resisting power against disease, which becomes evident after some months."

We are inclined to agree with him and Bauer, who wrote: "The beneficial effects of vegetarianism certainly do not depend on the fact that its followers take no meat, but on their giving up their former bad habits."

Dr. Thompson's teaching throughout his book is sound, to our way of thinking.

This book has deservedly earned its place among the foremost works on dietetics in the English language

STORCK.

The Practice of Medicine. By JAMES TYSON, M. D. P. Blakiston's Son & Co., Philadelphia, 1909.

This is the fifth edition, revised and enlarged, with five plates and 245 other illustrations, of the well-known text-book on practice by the distinguished professor of medicine in the University of Pennsylvania, James Tyson.

It was written for practitioners and students, with special reference to diagnosis and treatment, and placed abreast of the requirement of to-day. The additions embrace a broad field: infectious diseases, diseases of the blood, treatment of tuberculosis, opsonic index, blood cultures, diseases of the stomach, testing for occult blood, Cammidge's pancreatic reaction, diseases of the circulatory system, the Adams-Stokes syndrome, pericarditis, tetany, exophthalmic goitre, treatment of Graves' disease by the anti-serum, Marie's new views as to aphasia, amaurotic family idiocy, congenital hypotonia, herpes zoster, Wassermann's reaction.

The enumeration of these additions shows how useful this book will prove to those who want to refresh their memory and keep up with modern practice. E. M. D.

Handbook of Diseases of the Rectum. By LOUIS J. HIRSCHMANN, M. D. C. V. Mosby Medical Book and Publishing Company, St. Louis.

The purpose of the author is to help the general practitioner to learn the diagnosis and treatment of ano-rectal diseases, and he has limited his

descriptions mainly to non-surgical methods and to conditions amenable to office treatment.

A chapter on dysentery, by Dr. John L. Jelks, is included; also one on the examination of feces, by Dr. George W. Wagner, both of which are excellent.

One of the most important chapters is that on the technique of the use of local anesthesia in the treatment of ano-rectal diseases. It covers the ground thoroughly, yet is concise, and of itself makes the work a useful one. C. C.

Diagnostic Methods. By RALPH W. WEBSTER, M. D., Ph. D. P. Blakiston's Son & Co., Philadelphia.

A text-book for students and practitioners, with thirty-seven colored plates and 164 other illustrations, presenting in a very neat exposition this most important subject-matter, viz: laboratory researches, which go hand in hand to-day with clinical examination. A book of this kind is absolutely needed by all who either work in a laboratory or seek reference or information as regards specimens sent to a laboratory. E. M. D.

Progressive Medicine, Vol. XI, No. 3, Sept. 1, 1909. Lea & Febiger, Philadelphia and New York.

This volume III, 1909, reviews the advances, discoveries and improvements made in diseases of the thorax and its viscera, including the heart, lungs and blood vessels, in dermatology and syphilis, in obstetrics, and in disease of the nervous system. E. M. D.

International Clinics, Vol. III, Nineteenth Series, 1909. J. B. Lippincott Company, Philadelphia and London.

The usual number and variety of remarkable articles, with illustrations, colored plates, plates and figures, are to be found in the present volume, as the original stamp and mark of this well-known quarterly. We note the treatment of tuberculosis, the present position of antitetanic serotherapy, Mesmer and Perkins' tractors, clinical observations in five hundred cases of typhoid fever, Graves' disease, Raynaud's disease, and some of the allied forms of vasomotor disorder (vasomotor ataxia); gonococcic septicemia, women in medicine, the association of migrating thrombophlebitis with thrombo-angiitis obliterans, and other articles in surgery, gynecology and obstetrics, orthopaedics, pædiatrics, radiography, otology, neurology, ophthalmology and pathology. E. M. D.

Publications Received.

POWELL PUBLISHING COMPANY, London.

Fundamentals and Requirements of Health and Disease, by Thomas Powell, M. D.

P. BLAKISTON'S SON & CO., Philadelphia, 1910.

Ophthalmic Surgery: A Treatise on Surgical Operations Pertaining to the Eye and Its Appendages, With Chapters on Para-Operative Technic and Management of Instruments, by Charles H. Beard, M. D.

Medical Diagnosis, by Chas. Lyman Greene, M. D. Third Revised Edition.

G. P. PUTNAM'S SONS, New York and London, 1909.

A Quiz Book of Nursing, by Amy Elizabeth Pope and Thirza A. Pope, Together with Chapters on *Visiting Nurses*, by Margaret A. Bewley, R. N.; *Hospital Planning, Construction and Equipment*, by Bertrand E. Taylor, A. A. I. A., and *Hospital Book-keeping and Statistics*, by Frederic B. Morlok.

The Problem of Age, Growth and Death, by Chas. S. Minot, LL. D.
Insomnia and Nerve Strain, by Henry S. Upson, M. D.

REEMAN COMPANY, New York.

Diagnostic Therapeutics, by Albert Abrams, A. M., M. D.

REPRINTS.

Surgical Treatment of Tuberculous Pleurisy, Lung Abscess and Empyema; Diagnostic Aids in Diseases of the Lungs and Pleura; Some Practical Points in the Application of Bismuth in Chronic Suppurative Diseases, by Emil G. Beck, M. D.

What Can We Do to Prevent, Arrest and Cure Generalized Fibrosis, by Frederick S. Mason, M. D.

Hyperthermal Medication, by Barthe De Sandfort, M. D.

MISCELLANEOUS.

Digest of Comments on the Pharmacopœia of the United States of America, (Eighth Dicennial Revised,) and the *National Formulary*, Third Edition, 1906, by Murray Galt Motter and Martin I. Wilbert. (Washington Government Office, 1909.)

The Gouty State. (W. J. Morrison, Publisher, New York, 1909.)

A Symposium on Thoracic Surgery: Discussion on papers of Drs. Powers, Beck, Meyer, Frederick, and Green and Janeway.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans,
FOR JANUARY, 1910.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	3	2	5
Intermittent Fever (Malarial Cachexia)			
Smallpox.....			
Measles	4		4
Scarlet Fever.....	3		3
Whooping Cough.....			
Diphtheria and Croup.....	2	2	4
Influenza	15	11	26
Cholera Nostras.....			
Pyemia and Septicemia	1	3	4
Tuberculosis.....	28	17	45
Cancer.....	8	8	16
Rheumatism and Gout			
Diabetes	2		2
Alcoholism	1	1	2
Encephalitis and Meningitis.....	6	1	7
Locomotor Ataxia.....	1	1	2
Congestion, Hemorrhage and Softening of Brain.....	15	12	27
Paralysis	4	1	5
Convulsions of Infants		5	5
Other Diseases of Infancy	8	5	13
Tetanus.....	2	3	5
Other Nervous Diseases		1	1
Heart Diseases.....	32	33	65
Bronchitis	5	17	22
Pneumonia and Broncho-Pneumonia.....	44	35	79
Other Respiratory Diseases.....	7	3	10
Ulcer of Stomach.....			
Other Diseases of the Stomach	4	2	6
Diarrhea, Dysentery and Enteritis.....	18	9	27
Hernia, Intestinal Obstruction.....	2	2	4
Cirrhosis of Liver.....	13	6	19
Other Diseases of the Liver	2	1	3
Simple Peritonitis	2		2
Appendicitis.....		1	1
Bright's Disease	19	25	44
Other Genito-Urinary Diseases.....	9	5	14
Puerperal Diseases	10	5	15
Senile Debility	7	4	11
Suicide	8		8
Injuries.....	21	24	45
All Other Causes.....	106	8	114
TOTAL.....	412	263	675

Still-born Children—White, 30; colored, 16; total, 46.

Population of City (estimated)—White, 272,000; colored, 101,000;
total, 373,000.

Death Rate per 1000 per annum for Month—White, 16.63; colored,
27.20; total, 19.49.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.20
Mean temperature 55.00
Total precipitation 2.68 inches.
Prevailing direction of wind, south.

New Orleans Medical and Surgical Journal.

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APRIL, 1910.

No. 10

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Beck's Bismuth Paste for Diagnosis and Therapeutics; Report of Cases.

By HERMANN B. GESSNER, M. D., New Orleans.

HISTORY: In March, 1906, Dr. E. G. Beck, of Chicago, injected a psoas abscess of two years' duration with bismuth paste for the purpose of making out its ramifications with exactness through a skiagraph. Discharge ceased and the sinus remained closed, firmly healed. In March, 1908, appeared his first paper on the subject, in the *Journal of the A. M. A.* (Referred to below in the bibliography of the subject.

INDICATIONS: These are fistulous tracts, tuberculous sinuses or abscess cavities, including empyema. The treatment has been applied with success to spondylitis with psoas abscess; tuberculous hip-joint, knee-joint, pelvis, ulna; chronic osteomyelitis of the femur; fistula after removal of tuberculous kidney; abscess of lung, chronic empyema cavities; rectal fistula; abdominal fistulæ after laparotomy (including one appendiceal fecal fistula; lat-

* Read before the Orleans Parish Medical Society, Jan. 24, 1910.

terly, also in the primary treatment of thoracic empyema. Finally, in chronic infections of the nasal accessory sinuses, in intranasal conditions, diseases of the mastoids, ear, tonsils.

CONTRAINDICATIONS: These are sequestra or other foreign bodies (*e. g.*, renal calculi, silk ligatures); acute conditions of the nose, throat and ear.

FORMULÆ:

1.		3.	
Bis. Subnit.....	30	Bis. Subnit.....	30
Vaselin	60	White Wax	10
Mix while boiling.		Soft Paraffin	10
		Vaselin	50
2.		4.	
Bis. Subnit.....	30	Bis. Subnit.....	30
White Wax	5	White Wax	25
Soft Paraffin	5	Soft Paraffin	10
Vaselin	60	Vaselin	35

Note.—The bismuth is added very gradually to the boiling vaselin, either white or yellow; later the white wax and paraffin are added and mixed thoroughly.

In large cavities, when primarily opened, a 5% paste has been injected.

TECHNIQUE: The cavity should be dried by packing with dry gauze if the orifice be large enough to permit; otherwise, it may be injected with alcohol (unless opening into a viscus) for the purpose of dehydrating it. Absence of water is a feature of some importance, as the method is thought to owe some measure of its success to the elimination of the moisture so necessary to bacterial life. Yet benefit has followed the injection of the paste into a cavity full of pus. The syringe to be employed should have a conical tip like a urethral nozzle, so as to fill up the sinus orifice and prevent escape of the paste when injected. It should be dry sterilized to eliminate water, but this may also be accomplished by washing with alcohol if boiling has to be employed for sterilization. Again, lubrication of the plunger should be done with sterile vaselin. The paste is to be injected warm and fluid, then retained in the cavity by pressure with a gauze plug backed up by adhesive plaster until it cools and hardens; an ice-bag hastens this process.

Formula No. 1 is employed until the infection is controlled; No. 2 (less often 3 or 4) is then employed to give a firmer, aseptic plug similar to the filling of a carious tooth. As the paste is difficult to aspirate into a syringe, I have found it convenient to remove the syringe plunger, put a finger under the barrel tip and pour the warm fluid into the barrel, leaving enough room at the top for the plunger. A convenient syringe for the purpose is an all-glass syringe with asbestos packing, the long tip of which can be filed off if necessary to obtain the desired conical end. The injections are repeated every day or two as long as the paste is discharged and micro-organisms are still found in the secretion.

MODUS OPERANDI: E. C. Beck expresses the opinion that the bismuth is too weak to destroy the bacteria by direct chemical effect; in fact, it is known to be too weak to destroy them "in vitro." It is therefore suggested that bismuth exerts a positive chemotaxis, attracting leucocytes, which destroy bacteria by phagocytic action. Certainly the bacteria diminish in number, and finally disappear after the bismuth injections, according to his bacteriologic investigations. For this purpose distention is not necessary, as the same effect has been observed where a quantity not sufficient to produce distention has been used. The use of the X-ray for diagnostic purposes after bismuth paste injection has been thought to aid in effecting a cure by making the bismuth radio-active, this in turn stimulating the granulations on the cavity walls. Yet cases have improved remarkably, been cured, in fact, in which no X-ray exposure was made. (See case II.) However, Beck believes the use of the ray to be helpful, particularly in tuberculous cases. The injections, as mentioned above under the head of technique, prevents watery accumulations when used in quantity sufficient to fill the cavity, and excludes air infection, whatever importance that may have. To sum up what has been said so far under this head, the injection in one or more of several ways relieves sepsis. Sepsis having been relieved, the paste, particularly in the form of Formula II, remains for some time as an aseptic plug, like the filling of a carious tooth or the Mosetig-Moorhof plug in a bone cavity. This forms a framework into which grow granulations from the surrounding walls, the framework being gradually absorbed. The final result, then, is the healing of the cavity by granulation-tissue formation and cicatrization.

RESULTS: E. C. Beck reports 19 cases of empyema and lung abscesses, 14 cured, 4 improved, 1 discontinued treatment, besides excellent results in cases of bone and joint tuberculosis, chronic osteomyelitis, tuberculous fistula after laparotomy, rectal fistula, appendiceal fecal fistula. J. C. Beck has had excellent results in chronic infections about the nose, throat and ear. A. J. Ochsner reports 14 cases of empyema, of which 12 were completely healed at the time, 2 still under treatment very much improved. Nemanoff reports from Kadjan's clinic, St. Petersburg, 4 cases of empyema cured with one injection each.

In my own experience, 3 cases in which the treatment was applied, one of tuberculous periostitis, another of tuberculous disease of skin, fascia and perhaps periosteum, and one of long-standing empyema, with lung abscess, were promptly improved, and the two former so far permanently healed. A fourth died of tuberculous meningitis before the treatment had had a fair chance to accomplish anything.

While E. G. Beck says that in empyema the lung must have a certain degree of resiliency, he believes that the bismuth by local leucocytosis causes not only sterilizing, but also a softening of the indurated pleura sufficient to allow the lung to expand and help obliterate the space.

Ochsner speaks of successfully injecting a case with 720 c. c., equivalent to 24 ounces or $1\frac{1}{2}$ pints, so that even large cavities, with compressed lungs, give promise of cure by this method.

DANGERS: Among the dangers is the possibility of paste, injected into a lung abscess during general anesthesia, being drawn into the trachea and suffocating the patient. Here mention of this should suffice. A much greater danger, and one that demands serious consideration, is that of poisoning from the absorption of the injected paste. Clinically, the cases of poisoning are divided by Landis into two classes: In one, characterized usually by sudden onset, then is weak pulse, coldness of the body, dyspnea, cyanosis, collapse. Headache, fever and delirium come on, ending sometimes in death. After death, an altered condition of the blood is found, considered a met-hemoglobinemia. This class of cases is thought to be due to nitrite poisoning.

In the other class of cases, the symptoms are mainly gastrointestinal, especially of the mouth. There is severe stomatitis,

with marked inflammation of the buccal mucous membrane, swollen gums, ulcerative or croupal changes, salivation, loosening of teeth.

The tonsils and parotid may become swollen or painful. Blackish or greenish blue deposits appear on the gums, at first punctate, but later coalescing. Mastication and swallowing are painful. The urine is diminished in quantity, contains albumin and casts. Nausea and vomit may follow, with diarrhea. There may be fever, headache, delirium. These cases may be occasioned by bismuth, though the tendency is to believe that nitrites are here again at fault.

Eggenberger reports a case in which a bismuth paste injection caused death. A second is recorded by David and Kauffman. Beck himself reports a third death, in which the responsibility of the paste is, in my opinion, more than doubtful. I do not refer to deaths from oral ingestion of the subnitrate, as that is quite another story. We know enough to make us careful how we employ the method. While Ochsner has put 720 c. c. of the No. 1 paste into a patient without bad result, cases have been recorded in which 90 c. c. have caused untoward effects. We must, on the one hand, limit ourselves to weaker mixtures or to moderate quantities of the present paste, say under 6 ounces (90 c. c.) of the No. 1, and then watch our patients for ill effects; on the other hand, experiments must be made to determine whether this very promising therapeutic means may not be successfully modified either by substituting other bismuth preparations for the subnitrate, such as the oxide, the subgallate, the salicylate, or by using insoluble salts of other metals, such as zinc and iron. Lewin, quoted by Landis, believes that ferric oxide is excellently adapted for diagnostic purposes. In his opinion, the other salts of bismuth are just as toxic as the subnitrate. J. C. Beck has proposed for experimental use in chronic suppurations of ear, nose and throat, insoluble salts of Zn, Ca, Ba, Ag and Hg, and promises to report on such use at a later date. The fluid bismuth preparation of a local house should be given a trial in this connection. Meantime, while using the bismuth paste more cautiously, and keeping on the lookout for unpleasant effects, these effects may be made to disappear usually by distending the injected cavity with olive oil at 110° F. and removing the resultant suspension with a suction syringe. This has been done successfully in cases on record in the

literature. I append a brief report of some cases treated by this method, with conclusions and a fairly complete bibliography:

Case 1: D. K., white male, school boy, age 8. History of pneumonia followed by empyema in May, 1907; treated by aspiration and puncture; persistent fistula with foul odor. Operated on by me (Estlander method), June, 1908; improvement, but persistent sinus. Subsequent emaciation. April, 1909, injected bismuth paste No. 1, fl. oz. i. Diminished discharge and improved odor. Tuberculous meningitis, death, May, 1909.

Skiagraph (made by Dr. W. M. Perkins) shows narrow sinus, with small diverticula.

In this case the method was applied too late to do any good, save to impress me with its possibilities and encourage me to use it again and earlier.

Case II: W. R., white male, age 6. Seen in July, 1909, suffering from a tuberculous osteomyelitis of left tibia. Subperiosteal excision of shaft of tibia for eight inches, followed by complete reproduction. Subsequent tuberculous periosteitis, with sinus formation. Injection with bismuth paste No. 1 (less than fl. oz. ss), on Nov. 7, 1909, with immediate healing within a week. No recurrence of discharge up to date. No skiagraph.

Case III: L. S., white male, physician, age 31. Seen about Nov. 14, 1909, when he presented a sinus near the left iliac crest, and two below the right iliac crest, all posteriorly. The skin margin was purplish and undermined, the sinuses discharged a thin, watery pus; clinically a diagnosis of the tuberculosis was made, cutaneous, fascial and perhaps periosteal. Nov. 15th patient was injected by Dr. J. B. Guthrie mainly with bismuth paste No. 1, to which collargol in mucilage of acacia was added to eke out and enable him to distend all pockets connected with the sinuses. An excellent skiagraph resulted, showing numerous ramifications of the sinuses, without bone involvement.

The sinuses at once ceased to discharge, healing soundly within a week. Up to this time they have remained well.

Case IV: M. H., colored male, farmhand, aged 18, was admitted to ward 10, Charity Hospital, Dec. 4, 1909. Family history negative, save for statement that paternal uncle died of consumption. Previous history negative. Present illness began January 17, 1909, when he was shot through the left side of the chest, ex-



ILLUSTRATING DR. GESSNER'S ARTICLE.

ternal to the mammary line, about midway of the vertical diameter. He spat blood at the time, and was sick in bed two months. In May he was operated on, a segment of the sixth left rib being removed to the axillary line. The fistula caused by this thoracotomy persisted to the time of admission.

Examination showed a small fistula opening corresponding to a defect in the sixth left rib in the axillary line, with discharge of a greenish, watery, very offensive pus. Nature had bent the spinal column quite markedly to the left in the attempt to close and heal the empyema cavity, producing a definite scoliosis. Physical signs showed a thickened pleura and only feebly functioning lung. Patient emaciated, anemic, expectorating offensive sputum, the source of which was not definitely made out. Temperature 99.1°. Dec. 6 two fluid ounces of bismuth paste No. 1 were injected into the fistula and its escape prevented with gauze pads fixed to the side with adhesive. Discharge diminished somewhat and odor became less offensive. Dec. 22 a second injection of fl. oz. ii bismuth paste No. 1 was made, evidently filling the cavity to distention, as an excess flowed back by the syringe nozzle. A skiagraph by the X-ray Department of the hospital, under the supervision of Dr. A. Granger, showed a considerable cavity filled with paste.

On Jan. 12 the cavity ceased to discharge. For twelve days there was no further escape of pus, the mouth of the fistula having closed. The patient improved in every way; his temperature fell to normal, he grew stouter, his mucous membranes became pink; the expectoration ceased.

This morning [Jan. 24] examination showed a pustule over the fistula opening with escape of a small quantity of odorous pus on forcible expiration. Injection of a third 2-oz. of the paste caused expectoration of a dark, pasty substance, evidently the blackened bismuth of the previous injections. Clearly, the fistula leads through the pleura into a pulmonary abscess cavity drained by a bronchus. While not cured, this patient has been so much improved that I feel justified in reporting his case as reflecting credit on the bismuth paste method.

CONCLUSION: The lay public pleads for nonoperative measures of relief. We cannot but admit that where such measures give results at least equal to those of operative procedure, they are to be preferred.

The elimination of the dangers of anesthesia, plus those of shock, hemorrhage and sepsis, is quite a consideration, to say nothing of the lessened expense and anxiety to the patient and his family. In the bismuth paste method we have a means which, easily applied in the home and associated with only a slight degree of danger from toxemia, offers excellent results. Sinuses, the operative following up of which would mean extensive incisions under prolonged anesthesia, old empyemas which, under a Schede or an Estlander thorecoplasty, would subject the patient to considerable trauma and mutilation, may by this means be quite certainly cured with danger only from the toxic effects, which are now becoming well understood, and which we shall certainly learn to eliminate before long.

All things considered, I feel that we have in this method one over which we may well be enthusiastic. If I have rushed into this paper after only a short experience with the paste, it is because I feel that it has not yet received due attention, and I hope to induce others to give it the wide use which alone can definitely fix its status and determine its true value in the numberless sinuses and fistulous tracts that await a quick, safe, painless cure "without the use of the knife."

BIBLIOGRAPHY: E. G. Beck, *Fistulous Tracts, Tuberculous Sinuses and Abscess Cavities. A New Method of Diagnosis and Treatment by Bismuth Paste.* *Journal A. M. A.*, March 14, 1908, p. 868.

E. G. Beck. Toxic Effects from Bismuth Subnitrate, with Reports of Cases to Date. *Ibid.*, January 2, 1909, p. 14.

J. C. Beck. Bismuth Paste in Treatment of Suppuration of the Ear, Nose and Throat. *Ibid.*, January 9, 1909, p. 117.

A. J. Ochsner. The Treatment of Fistulæ and Abscesses Following Operations for Empyema of the Thorax. *Annals of Surgery*, July, 1909, p. 151.

Nemanoff. The Treatment of Fistula and Drainage Passages. *Russk. Vrach.*, VII, p. 1568.

H. R. H. Landis. Bismuth. *Progressive Medicine*, December, 1909, p. 279.

Leonard W. Ely. Results of the Use of Bismuth Paste in Tuberculous Sinuses of the Sea Breeze Hospital. *Am. Jl. of Surgery*, January, 1910, p. 16.

Karl Beck. Chronic Osteomyelitis; Its Diagnosis and Treatment. *Surg., Gyn. and Obstetrics*, February, 1910, p. 113.

Notes on the Etiology of Infantile Diarrhea.

By C. W. DUVAL, M. D., New Orleans.

The present state of our knowledge of the summer diarrheas in infancy is entirely due to the recent studies of the role of the dysentery bacillus as an organism infecting the intestine. Through the work of Bassett and myself, in the summer of 1902, the pathogenicity of this bacillus was definitely estab-

lished and proven to be the specific cause of the acute dysenteries known under the general term, "Infantile diarrheas."

The same etiologic factor is concerned in the diarrheal disturbances of infancy that occur in the cooler months as in the summer months. In other words, the intestinal troubles of infancy occurring in the summer do not differ etiologically, clinically or anatomically from the dysenteries occurring in the winter, except that in the summer the disturbance is more frequent and severe. The causal significance of the so-called acid type of the dysentery bacillus in the intestinal upsets of infants is brought forcibly to our attention by the fact that in some 2,000 cases of infantile diarrheas, in which a careful bacteriological examination was made, has yielded the organism in 80 per cent of the cases.

The question suggested by these results is how far the constant presence of one or more varieties of the dysentery-bacillus in the intestine of children suffering from diarrheal disease is evidence that it is the specific cause of the disease. It has long been known that other pathogenic organisms may be found in the gut without evidence of an actual infection. During the last two years I have studied systematically, first in Montreal and later in New Orleans, the stools and blood from a great variety of diseases, which at some time during their clinical course were complicated with diarrheic disturbance. Such a study has afforded me an excellent opportunity to judge of the widespread occurrence and causal relation of this so-called acid type of the dysentery bacillus. Not only is it of prime importance in infantile diarrheas, but of importance in a great variety of diseases not primarily intestinal. For example, we find it occupying the clinical field at death as a terminal infector in the insane, in pellagra, amebic dysentery, chronic tuberculosis, measles, scarlet fever and many other conditions which are not essentially a disease of the intestine.

The fact that it is such a common secondary invader strongly argues that the gut is, after all, its normal habitation. In my opinion the special type of the dysentery bacillus which is found in infantile diarrheas is normally present in the intestine, like the pneumococcus and streptococcus, living, so to speak, a saprophytic existence in the intestine without patho-

logic significance. This belief is based upon the fact that I have found the bacillus, though in small numbers, in the stools of healthy, milk-fed infants. It would seem not only possible but highly probable that the presence of this bacillus normally in the intestine has the same significance as the presence of the pneumococcus in the upper air passages, which under certain conditions assume a pathologic role. That this strain of the dysentery bacillus may be found in all normal intestines, where a painstaking search is made, there is no doubt in my mind; therefore the question naturally arises whether, after all, it at any time stands in causal relation to intestinal disease.

The presence in the gut alone of this organism does not constitute a proof that it is the cause of any given case of infantile diarrhea; however, the development of specific agglutinins in the blood and the invasion of the intestinal mucosa, along with a marked increase in the number of bacilli in the stools, afford ample proof of its pathogenic action. I think it has been shown that in every instance of infantile diarrhea in which there is an actual lesion it is the essential cause. We have only to examine the blood to realize the truth of this statement.

Since the demonstration by Pfeiffer of bacteriolysis and the application of the phenomenon to the diagnosis of typhoid fever by Widal, agglutination of bacteria by diluted blood-serum has been much employed in the diagnosis of bacterial diseases. Although closer and more searching study has exposed certain fallacies to which the test is subject, yet the latter has served to establish more definitely the limits of its application. Therefore the general statement can be made, to which the exceptions are relatively unimportant, that agglutination of bacteria by well-diluted blood-serum is an indication of infection with the bacterium agglutinated. The "deviation of complement" test, so much employed nowadays as a means of diagnosis, establishes beyond doubt that bacteria agglutinated by specific serum are in causal relation to the disease.

The value of this general fact becomes enhanced if it is shown that under conditions of health and in the course of certain forms of disease this agglutinative reaction is absent, while at the same time it appears regularly when a definite kind of pathological state of the body exists.

Nowadays we speak of the dysentery bacillus as the cause of summer diarrhea—that is, one of the types or sub-groups of the dysentery bacillus, the so-called “acid” strain. Whether the strain associated with summer diarrhea, endemic and sporadic dysenteries is, after all, the same species as the bacillus described by Shiga in epidemic dysentery I seriously question, though only in the last few years have I come to this change of opinion.

Based upon a comparative cultural study, Vedder and I, working under Flexner, were the first to state that the differences held by Kruse, who claimed an independent position for the two strains, was unwarranted. Even at the time we established the dysentery bacillus as the etiological factor in summer diarrhea, I still believed that the bacillus in these cases corresponded completely with the true Shiga organism.

It is unfortunate for the nomenclature that doubts and disagreements regarding the nature of certain strains of bacilli should have entered into the discussion of the cause of dysenteries. Whether the bacillus of acute bacillary dysentery in adults, such as Shiga first described, and the bacillus described by Flexner in endemic and sporadic dysenteries, which is the same described for summer diarrhea, are of independent origin does not alter the fact that both types are disease producers. The term dysentery, after all, is merely a name applied to a variety of forms of enteritis, which does not in any sense signify the underlying cause.

Kruse was the first to point out biological differences between these two types of bacilli. On the bases of these differences he proceeded to designate one as “true” dysentery ex-citators, and the other as “pseudo” dysentery. Even though the two types are of distinct origin, as I now believe, Kruse’s terms are most unfortunately chosen, as we cannot have a “pseudo-dysentery.”

If anything, the organisms of summer diarrhea, endemic and sporadic dysenteries are more important from a clinical, as well as a pathological viewpoint, than the true Shiga bacillus. The former is widely distributed and a constant source of trouble, while the latter, it might be said, is met with only in epidemics.

Each year the evidence tends to establish more and more the

belief that the two organisms are distinct, though the anatomical lesions are in essential agreement for both types of bacilli, except that the true Shiga organism produces a more severe type of disease.

Perhaps, were it not for the fact that both act pathogenically upon human beings, and in the same general manner, there would never have been any confusion of the two. For a long time after Shiga's discovery types of dysentery bacillus were unknown. The controversy arose at a time when the finer physiologic distinctions were not possible, and under the circumstances their biologic similarity led us naturally to regard them as one and the same, especially as they produce the same lesion.

Because of the marked variation in agglutinative and physiologic differences, such a position is no longer tenable; certainly, the distinction is more marked between these two organisms than that of typhoid and paratyphoid bacilli.

The "true" Shiga bacillus produces a soluble toxin, while the toxin of the bacillus of summer diarrhea is intimately associated with the body of the organism. Again, they do not mutually respect one another, for if mixed together in equal parts the Shiga bacillus is soon killed out by the other. Cultural and agglutinative peculiarities exist and need only be mentioned as further evidence of difference.

You may ask of what does it matter whether infantile diarrheas are caused by the one or the other bacillus? It matters a great deal, for on it depends largely the future practicability of using therapeutically anti-dysenteric serum. Certainly it is of commanding importance in respect to the possible employment of an artificial immune serum in combatting infantile diarrheal infections. I believe that the failure we experienced in treating cases with the immune serum in New York during the summer of 1903 was in large part due to the fact we did not recognize the distinction between bacilli of epidemic dysentery and infantile diarrhea.

When we turn our attention to the probable source of the infecting bacillus in infants, we appreciate immediately our ignorance of the habitat in nature of the organism. It has only been found in the intestinal tract—there is never a gen-

eral invasion of the body by the bacillus—but whether it gains access to the intestinal tract through milk or water we can only conjecture. I believe, however, that it is a constant inhabitant of the gut tract, where it survives saprophytically among the other intestinal bacteria.

Infection is precipitated by insults, of one sort or another, to the intestinal mucosa, which permits the organism to acquire a parasitic property, thereby leading to serious pathologic disturbance.

Auto-infection is common with certain bacteria, such as the pneumococcus and streptococcus, and why not with the bacillus of infantile diarrhea? It is perfectly reasonable to assume that the influence of other factors than the mere presence of the bacillus in the gut determines the origin of infection.

The contagiousness of Shiga infection among adults, and the absence of diarrheal contagion among infants, makes us recognize auto-infection in one and extra-infection in the other—another point tending to show the etiological difference between acute epidemic dysentery and infantile diarrhea.

Upward of over 2,000 cases of acute infantile diarrheas which have been studied since the etiology was established have given no history of anyone in the household other than the baby suffering from diarrheal trouble. The illness of the infant was the first, and usually the only, case of intestinal disease in the family—a point of importance in considering the mode of infection and certainly one to emphasize the fact that infantile diarrheas are “auto-infections.”

There is little to show that water or milk are the carriers of the contagion. In the study of 300 cases in Boston during the summer of 1905, 40 per cent of the diarrheas developed in babies which were fed on foods presumably sterile and 60 per cent in those where no such precautions were taken. From these facts it is reasonable to conclude that the bacterial infection from without is rare in infantile diarrhea. That milk and other foods may carry the bacillus of infantile diarrhea we cannot deny; but it is an exception to the rule. With outbreaks of acute epidemic dysentery, this does not apply, for in this class of cases the contagion undoubtedly is water borne.

Another noteworthy fact in connection with the auto-infec-

tious nature of the diarrheal disorders in infants is that almost all of them are poorly nourished and show pronounced stigmata of one kind or another. Usually the baby for some weeks or months has not been thriving, when, without any immediate cause, the symptoms of intestinal disease set in.

This special type of dysentery bacillus in the infant's intestinal tract may produce widely different clinical manifestations which are identical with the various forms of so-called summer diarrhea. Failure to appreciate this variation of the degree of infection accounts for the differences of opinion regarding the etiology of infantile diarrhea and also accounts for the great confusion in its terminology.

Our knowledge of the bacterial excitor for acute diarrheas in infants need not cause us to neglect the long recognized factors we now know to be but indirectly responsible. The modern tendency to classify types of disease upon a bacteriologic basis does not make us forget the relative importance of these precursory factors, such as diet, hot weather, etc. Far too great a variety of terms is used in describing infantile diarrheas—one clinician will speak of dyspeptic diarrhea, another of fermental diarrhea, and so on. An observer accustomed to another terminology will speak of catarrhal diarrhea, and another of acute enteric fever. One wonders what is the distinction. In view of the great advance of our knowledge of the infantile diarrheas from the standpoint of bacteriology, there is no longer any need of separating them into distinct clinical types based upon a definite symptomatology. They all have one and the same etiology, the variation in clinical manifestations merely representing the degree of infection, which, like other well-known diseases, depends upon the resistance of the host and the number and virulence of the invading organisms. There are those in which the toxic phenomenon is most marked and those in which there is evidence of serious lesions of the intestinal wall. Each of these may be mild, moderate or severe.

In regard to the character of the stool, it is no criterion of the severity of the disease, nor of the number of specific organisms present, though in general it may be stated that a bloody mucous discharge is indicative of the more severe form of the disease. The diarrhea varies in severity, the variations bearing no definite relation to the severity of the case.

Considerable new light has been thrown upon the subject of the diarrheal diseases by the clinical investigations which have followed the announcement of the dysentery bacillus as the prime causal agent. It is shown that infection occurs under a wide variety of conditions, not only in the breast-fed infants, but in those artificially fed. The organism may give rise to sub-acute infection without previous acute symptoms, or coincident with, or following other acute diseases, such as pneumonia, measles, diphtheria, scarlet fever—and it is very common as a terminal infection in children suffering with so-called malnutrition and marasmus.

The organism may also produce a mild intestinal disorder, with few symptoms, hardly more than one would find in an ordinary intestinal indigestion; or it may give rise to local symptoms of considerable severity, yet with very little fever or constitutional depression. These variations in degree of infection account for the great variety of clinical pictures, varying from a mild diarrhea of brief duration, with loose but otherwise normal dejecta, to the gravest cases, with high and prolonged fever and evidences of marked changes in the gut. Even in the mildest forms, which are analogous to the long-recognized cases of diarrhea resulting from nervous influences, a careful test of the blood will show the specific agglutinin, or amboceptor.

Infantile diarrhea is not a disease of any one locality, nor is the disease one of the tenement and hospital; it occurs everywhere, in the country as well as in the city.

I need not remind you of the gravity of the disease, for we all know how high is the mortality and the need of a more efficient treatment. In treating the disease with antitoxin we must remember that no infection of the intestinal tract is without functional derangement of digestion. The two bear a constant relation to each other. The child's symptoms at first may be due entirely to indigestion, which later is augmented by the infection. Great disturbances of digestion are in most cases present either during or following the infection. On bearing this fact in mind depends the success of treatment with serum. All we can hope for with an immune serum is to stop the infective process.

Can we recognize clinically a non-infectious type of infantile diarrhea? Does such a type occur? I believe that most of the cases begin as an intestinal upset, not due to bacteria, which may stop here, but at any time is liable to go over into the infectious

type, because of the constant presence of this special bacillus in the gut, which now finds a less resistant intestinal mucosa; but to recognize the case as non-infectious, the blood test is essential—symptoms cannot decide.

Much yet remains to be done, and it seems to me that New Orleans offers an excellent opportunity to study the disease, not only with a view of determining the type and mode of infection and the number of cases, etc. (which I understand has not been worked out here), but with the view of establishing an immune serum which will prove more efficacious in combating the infection. Previous failure along this line need not deter us. We have but to think of epidemic cerebro-spinal meningitis, which, long before Flexner's success with the disease, was treated with an immune serum to no avail. Now we know that such a serum has lowered the mortality from 76% to 20%. Once we can successfully stay the specific infection in infantile diarrheas, the non-infectious factors can more readily be controlled.

Pulse Tracings—Their Application and Value in Practice.

By ISAAC IVAN LEMANN, M. D., New Orleans.

Pulse tracings are of great clinical value, because they afford definite information of the heart's action not otherwise obtainable. They give us clearer ideas of the disturbed cardiac function, and lead to a better correlation of this morbid physiology with distinct pathologic conditions. Hence they provide a better basis for accurate diagnosis, prognosis and logical scientific treatment. A few common illustrations will make clear what I mean. A pulse, while comparatively slow to the palpating finger, may not be due to true bradycardia. Possibly only every second cardiac contraction is strong enough to send a wave to the finger palpating the radial artery, or even sometimes to be heard at the apex. Or the bradycardia may be a slow ventricular contraction only, while the auricles are beating much more rapidly; in other words, the condition is that known as heart block. These various forms of bradycardia can be differentiated only by a study of pulse tracings. There are a number of different kinds of irregularities in the heart's action, each with a separate cause and a different prognosis and with distinct indications for treatment. Again, pulse tracings

* Read before the Orleans Parish Medical Society, Feb. 14, 1910.

enable us to determine the form of the irregularity in a given patient. Certain irregularities offer a gloomy outlook; others have been found by experience to be of slight importance, as far as life is concerned. Some are benefitted by digitalis, while some are decidedly harmed thereby. From this you will see that pulse tracings are of great practical importance.

Formerly only tracings of the radial pulse were made and studied, but these afforded only a limited information, and had, therefore, only a limited usefulness. We gained from them knowledge only of the left ventricle, and, indeed, not a full knowledge of that. To these radial pulse tracings has been added the study of tracings from venous pulsations (phlebograms), especially from the jugular pulsations, from the cardiac impulse itself (apex beat), from liver pulsations, and from the pulsations of other arteries. We have thus a mass of information which can be correlated, and from which interpretations can be made of auricular as well as ventricular function. All of this has led to an entirely new conceptions of the heart's action in diseased conditions, and is the chief reason for the renewed interest in pulse tracings.

The machine with which these tracings are made is simple. By means of a wristband it is fastened over the radial artery in such a fashion that the pulsations are transmitted to a tiny lever, which is caused thereby to make fine markings on a piece of smoked paper. To another similar lever, which will make markings on the paper parallel to those of the first lever, the pulsations of any other given parts (apex, vein, liver or artery) are transmitted by means of a column of air in tambour and a long rubber tube of small calibre. A third lever is operated by clock-work, and ticks off on the smoked paper markings one-fifth of a second apart. There are a number of different machines, but the one I show you here—the Jaquet poly-graph—will suffice to make clear to you their type.

Tracings of the radial pulse alone show the characteristic pulsus celer of aortic regurgitation, with its deep ascent and swift descent, the long, slanting, gradual ascent of the aortic stenosis, the dicrotic pulse and the pulsus alternans. The latter is a pulse whose waves are unequal, every other wave being high and the alternate ones low. As I have said before, such a pulse may be counted by the finger at half its actual rate.

The pulsations of the jugular veins are often visible, and even when studied by the eye have led to valuable deductions. For

instance, we know that normally we should have a negative vein pulse—that is to say, one which occurs in ventricular diastole. Abnormally, we have a positive vein pulse—that is, one synchronous with the arterial pulsation, where tricuspid insufficiency exists, usually subsequent to the dilation of the right ventricle. But this visual examination of the jugular pulse is often difficult and unsatisfactory, and it does not begin to afford the information one obtains from a tracing. The number of movements over the jugulars are usually more frequent than those in the arteries, and this adds to the difficulty of the visual examination, because not all of these movements are really due to venous pulse, but to transmitted arterial pulsations, or to other causes, as we shall see. This fact, on the other hand, adds greatly to the importance of the graphic method, for it permits the analysis of the waves and the allotment of each to its proper cause. I show you here a tracing of a jugular pulsation taken simultaneously with tracings from the apex beat, the carotid artery and the radial pulse, and you will understand readily how we can determine by measurement and comparison which waves are being formed at any particular phase of the cardiac cycle. Hence we can determine what is the most probable factor in the causation of each wave.

Now I show you a diagrammatic representation of the auricular, ventricular, and aortic pressures during one cardiac cycle. This makes clear what particular thing is happening at any point in the cycle, and assist in placing and interpreting correctly any given wave. I call your attention especially to the three periods, D, E, F, which are respectively the presphygmie, sphygmie and post-sphygmie periods. During the first and third the auriculo-ventricular valves are closed as well as the semilunar; during the second, the auriculo-ventricular valves are closed, but the semilunar are open.

Turning again to a tracing of a normal jugular pulsation, we note the following jugular waves: (*a*) due to auricular contraction, (*c*) due to the carotid pulsation, (*v*) due to the accumulation of blood in the auricle during ventricular diastole. When the auricle is filled, the surplus distends the superior vena cava and jugulars, and causes this (*v*) wave, a fourth wave (*h*) is sometimes seen, but the method of its causation is not entirely clear.

From a study of jugular tracings, especially when they are com-

pared with carotid or radial ones, we are able to allot to each element of contraction or pause its proper value. You will remember that the cardiac contractions begin normally at the jugular sinus—that is, at the base of the great veins, proceed thence in waves to the auricle, and finally to the ventricles. Through disease, such as fibrosis, secondary to sclerotic degenerations in the heart muscle, this transmission may be interfered with. Particularly is this the case when the scar has occurred in the auriculo-ventricular bundle (bundle of His), which proceeds from auricle to ventricle, and is the chief path along the impulse, is carried from auricle to ventricle. This will cause the condition known as heart block. Here there is a delay between the auricular and the carotid pulse—that is, an increase in the a-c interval. When the block is complete the auricles will be found to be beating at a rate entirely independent of the ventricular rate.

Another form of irregularity is the extra systole. Extra systoles, as defined by Mackenzie, are “premature contractions of auricle or ventricle in response to a stimulus from some abnormal point of the heart, but where otherwise the fundamental or sinus rhythm of the heart is maintained.” In other words, the rhythm of the waves originating at the sinus and passing to the auricle and ventricle is maintained, but in addition to this new stimuli arise, due to some irritation of foreign substance (such as localized fibrosis), in the cardiac muscle. Such extra systoles may find their origin in the auricular wall, in which event the extra waves appear in the auricular tracings and also in the ventricular tracings, because the extra waves are transmitted from auricle to ventricle just as the normal ones are. The extra systoles may, on the other hand, begin in and be confined to the ventricles. Now, it is well known that after such contraction the heart muscle required some time to recover. If a premature beat occurs after a regular beat, a compensatory pause of more than the usual length will be found following thereafter. Extra systoles may occur after each regular beat, and may stimulate a dicrotic pulse or a pulsus alternans. They may occur after every two normal beats, after every three, or after every four normal beats. These are but a few of the many kinds of irregularities that may be studied in the graphic representations. I have tried to limit myself to a few illustrations in order to avoid confusion, but I trust I have shown enough to stim-

ulate your interest as mine has been in this method of clinical observation, and to claim your respect for its practical worth.

In conclusion, let me acknowledge my indebtedness to Professor Dock for his assistance and for the loan of his slides. I would be a dishonest plagiarist did I not acknowledge the original stimulus of my interest in this matter—the excellent monograph of Mackenzie on the Heart.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. R. O. SIMMONS, of Alexandria, read a paper on

A Plea for Enforced Vaccination in the State.

I beg indulgence for a few minutes by inviting your attention to a subject so often discussed by members of this Society that I feel loath to present it. In doing so, however, I want it distinctly understood that I have made no discovery, but that I am merely trying to bring to life a truth that has so long lain dormant, in our State especially, that I feel our Society must again resurrect it.

The efficacy of vaccination and the necessity of its enforcement has been known for more than a century, and yet there are very few countries to-day in whose statutes is embodied compulsory vaccination.

Jenner's first works, appearing in the summer of 1798, were met with such opposition that it became necessary for him to publish, in the early part of the following year, additional "observations and conclusions," which finally brought about the establishment of institutions for cow-pox inoculations.

The points established by Jenner as early as 1799 are no less efficacious to-day than when first enunciated. He laid down the cardinal principles of "the protection of vaccination against small-pox, whether acquired in the natural way or by inoculation; the importance of using virus only from typical vesicles, and freedom from suppuration or other complications; the advantages of a clean

and simple operation; the possibility of a partial or complete failure, indicating a repetition of the application; the importance of special knowledge, experience and a careful observation in all cases."

He realized then that severe local lesions did not indicate protection, but that great harm was the usual result. To his belief in "life-long immunity conferred by vaccination" was no doubt due the rapid spread of vaccination throughout the civilized world. This was an error of his, though it proved to be a blessing in the prevention of the spread, and the great reduction of the mortality from small-pox at that time.

My object in presenting a paper on this subject is not that I wish to burden you with statistics, or that I fear that a difference of opinion exists among medical men relative to the immunity afforded by vaccination, or the kind of virus to be used, or to the precautions necessary, or to the kind of operation performed; but to bring before you the plain truth and to try and impress upon the public, through the efforts of the profession, the importance of enforced vaccination by the enactment of laws necessary to bring it about.

No advocate of vaccination can fail to take a deep interest in anything that tends to detract from its reputation. For more than a century has it proven its efficacy against variola under the severest possible test, and has, beyond dispute, "satisfied the judgment of medical men" throughout the civilized nations of the world.

The dangers that arise from vaccination are practically none, though we would admit, for argument's sake, that the practice of the measure is not entirely unattended with danger. Is not the slightest surgical operation sometimes followed by unfortunate results? Because of this, would we discard surgery? Because a certain drug is "powerful of evil as well as good," should we discard this drug entirely? For my part, I am not willing to admit that a death, or the loss of an arm, has ever been the direct result of an aseptic inoculation of a vaccine virus, manufactured by and obtained from a reputable and thoroughly reliable house.

Like every epoch-making discovery, the introduction of vaccination by Jenner "met, not with sympathy and encouragement, but with antipathy and open rebellion." The storm that rose against vaccination was no light squall, but a full-fledged tempest that

spent its violence more than a century ago; yet a complete lulling of the storm has not, even at this day, been accomplished. Science, "although a disciple of experience" and of facts, and a "teacher of intellectual knowledge," has not been able to still the unruly minds of the opposition, which has at all times refused to heed the appeals of reason.

The reasons and arguments raised by the antagonists of vaccination, which were "originally manifold," have changed to the effect that "the exercise of vaccination" is no longer considered a "crime against God," but they have at last entrenched themselves behind "politico-legal" individual rights, and the transmission of disease arguments, so called, for the reason that the individual rights advocates are so solicitous of the welfare of others that they would have vaccination entirely disposed of as a sanitary measure, and incidentally have the indifferent mind hail them as "the exclusive guardians of the liberties of the people."

Nothnagel says: "In relation to the pretended illegality of compulsory vaccination (and re-vaccination), we must energetically insist that, consciously or unconsciously, the opposition in their attacks proceeds from totally false premises in their conception of liberty." It must first of all be understood that personal liberty and free will have legal limits, and under no circumstances come into collision with common weal. For, otherwise, presumed rights might soon develop into actual wrong. And this would be the case with the omission of a measure which, like vaccination and re-vaccination, not only gives to the vaccinated manifest protection against smallpox, but likewise, indirectly, to the whole population of a region or country, a safeguard that cannot be valued too highly against epidemic spread of disease.

The legal question of the protection afforded by vaccination is not for the man who wilfully contracts smallpox and dies of the disease, but it is for the innocent, and for them we make our plea. Compulsory vaccination is not only a reasonable and justifiable measure which "excludes the despotism of the individual, and thereby serves the public weal," but it is a protector of the innocent as well.

The parent or guardian who is so careless or indifferent as to scorn the protection of his own person surely should not be depended upon to protect the little children; but the State should see to it that all children, after arriving at a certain age, should be

given the protection vaccination affords. Vaccination may or may not furnish an immunity that would be lasting, but if it did not a child being exposed to the infection would not be disposed to contract the disease, and surely would not have the confluent or malignant types of smallpox. Then, to vaccinate and re-vaccinate surely must be the right course to pursue, especially as the dangers of the transmission of the disease are to be no longer feared by the vaccinee.

There is no law in Louisiana which provides for compulsory and enforced vaccination. Whether there ever will be I am unable to say. But there is a law which provides for the vaccination of children attending the public schools of the State—a law which is worthless and cannot be enforced in the country parishes; and even if it were carried out it could not reach all classes of our citizenship. Take, for instance, the negro cabins of our plantations—veritable hotbeds of smallpox the year round. How are we to control the disease without compulsory vaccination? Isolation can never be effective here, for the reason that it will bankrupt the State to prevent the mingling of the negro race, especially in times of sickness.

The negro will tell you—and I dare say the white man as well—that he much prefers the disease to subjecting his person to vaccination. He refuses to submit, whether he be a source of danger or not, for the reason that he is aware there is no law compelling him. Then, how are we to control or stamp out the disease, when we realize that the greater portion of our State is made up of this race, together with the mixed breed? To whom does the State look for advice in sanitary measures if not to the medical profession and the sanitarians of our country? Gentlemen, we are a part of the State, and as citizens we have a duty to perform. To those of you who are intrusted with the health of the commonwealth, you have a duty to perform, and no one knows better than you how arduous is that duty under the existing health laws of our State. The suspicion of the ignorant classes is not altogether unfounded with reference to the dangers of vaccination, for really, in my experience of fourteen years as parish and city officer, I have seen several very bad-looking arms from vaccination, but the fault could not be placed at the door of the virus itself. It was always due to the careless way in which the operation of vaccin-

ation was performed, or for want of proper instructions relative to the care of the arm afterwards.

Inexperienced persons should not be allowed to vaccinate others, for, what does the ordinary layman or Hoodoo doctor know of asepsis? By what right should this class of persons be allowed to practice surgery? (for, surely, this is a surgical procedure). No wonder, then, that we are daily met with so much opposition to vaccinate. No wonder the "personal liberty" dodge is so frequently brought to the front. When the medical man carelessly rolls up the sleeve of the patient and scrapes the arm without the use of water or any antiseptic agent, he is playing directly into the hands of the anti-vaccinationist, and is thereby causing those who are inclined to be indifferent to turn a deaf ear to the teachings of the great Jenner.

Another mistake that is attributable to the careless, but otherwise competent and conscientious medical man, is when, at the time of the opening of the public schools in the State, he often inserts the virus and immediately gives the child a certificate to the effect that he or she has been properly vaccinated, when in reality the child has not been at all vaccinated until there is actual evidence of its taking. It is not every sore arm that has been successfully vaccinated, and it is the duty of every parent or guardian to return the child to the doctor as early as the tenth or twelfth day after the application for his inspection and further advice. Vaccination may, and will, be "robbed of its terrors" when only experienced and competent men are allowed to practice the art.

Germany stands alone in the fulfilment of this demand of hygiene, having, in consequence of the calamitous smallpox epidemic of 1871, enacted the law of 1874, which makes vaccination compulsory in the first year of life, and re-vaccination also obligatory as early as the tenth year. As a result of this law, Germany, with a population of fifty million people, having in 1871 lost one hundred and fortythree thousand lives from smallpox, found that the disease diminished so readily after vaccination, that in 1898 victims from this disease numbered only 116, and these were confined almost exclusively to her frontier. About this time, and during the Franco-German war, the losses of the French army, who had been carelessly vaccinated, or not at all, numbered some twenty-three thousand, while the Germans, who had been re-vaccinated, lost only 278. Among the wounded soldiers, nursed

under the same tent and breathing the same air, the French wounded were heavily visited by the disease, whilst the Germans, having been re-vaccinated, lost not a single case. (*Med News*, Dec. 17, 1898.)

What better proof could we wish? Take, for instance, Porto Rico. When taken possession of by the United States, this island had an extensive epidemic of smallpox, and, after vaccinating some 800,000 people (practically its entire population), the disease was obliterated from the island within four months' time, and that, too, without making any important changes in the general sanitary conditions of the country.

In a recent report from Dr. V. G. Heiser, who was at the time the Chief of the Sanitary Department of the Philippine Islands, we were struck with the statement that in seventeen provinces there had been a mortality of six thousand out of twenty-five to thirty thousand cases annually, and within twelve months following the completion of vaccination in these provinces there was not a single death. A striking illustration, upon a large scale, of the value of vaccination.

If enforced vaccination was, and is, still good for Germany, for the German army, for Porto Rico and for the Philippine Islands, why would it be detrimental for us here in our own beloved State, when we realize here in Louisiana, made up of an intelligent, law-abiding people, that there has not been a time since the close of the Spanish-American war when we could claim absolute freedom from the infection of smallpox?

The Federal Government, in taking charge of a new territory, proceeds at once to vaccinate all the inhabitants of that territory. Her military is practically immune; and here in Louisiana, with these examples before us, with smallpox germs swarming in the interior of the country parishes, riding around on the trains, subjecting our little children to its ravages, we, the profession, are content to leave it to the consciences of our people as to the advisability of vaccination, instead of making a plea for its enforcement. When you speak to a legislator as to the advisability of insisting upon laws for vaccination, what is the reply? "Why, we have already a law covering such cases—a law to have the children attending the public schools vaccinated. If I were to advocate a more stringent law I could never be returned to the Legislature. It is best at present to vaccinate all public school children of our

State and leave it to the people as to whether or not they will be vaccinated."

I do not want to be understood as being opposed to the family physician being allowed to vaccinate, for this is a practice that will always be; but if we could educate all our people to the importance of vaccination of all children at an early age, then enforced vaccination would not be necessary. But unfortunately only a small per cent look at vaccination from a sanitary standpoint. Public vaccination, then, has become necessary, and only persons appointed by and under the instructions of the State and local boards of health should be intrusted with this right.

To vaccinate only the children attending the public schools of the State is wrong and discriminating. Why not all children? And why wait until the child arrives at the school age, when we know the mortality from smallpox among little children is very great? Voluntary vaccination can never be depended upon to prevent smallpox epidemics, nor should it be, for it is not done only for the protection of the person vaccinated, but for all.

Because of our supposed superior intelligence in this country many imagine that voluntary vaccination is quite sufficient; but according to the investigations by Dock, published in his recent article on vaccination (*American Journal of Medical Sciences*), he states that in the State of Michigan, and nearby places in the adjoining States, where the laws on vaccination are far superior to those of most States, he could find that only 60 per cent of the people had been vaccinated, and the scars in many of these cases were not at all satisfactory.

The Constitutions of the United States and of the State do not grant unto each person an absolute right to be, at all times and under all circumstances, wholly free from his obligations to society, for society built absolutely upon the rule that each individual is a law unto himself would soon be confronted with a condition worse than anarchy. A law making it mandatory upon every citizen or inhabitant of a community having been exposed to the infection of smallpox to submit to vaccination could not be construed as being unconstitutional, arbitrary or oppressive, for this would grant unto a State the right to exercise its police power in granting every citizen the enjoyment of free government. In all the decisions of the Supreme Courts of the various States bearing upon

the constitutional rights of the people to enact laws regulating health measures, I have been unable to find a single instance where a court ruled that the enactment of a stringent vaccination law would be unconstitutional. Indeed, I may aptly quote the words of the learned Chief Justice of the State of Pennsylvania (if I mistake not the judge), who says: "At present the vast preponderance of opinion among intelligent and educated people, under the guidance of the best medical authority, is that vaccination is highly useful, ameliorative, if not always a preventive, of one of the greatest scourges that have in past time afflicted humanity, and that regulation of it by statute is not only a justifiable, but a wise and beneficent exercise of the police power over the public health."

With the preponderance of decisions that can be easily obtained bearing upon the legality of vaccination laws, I submit that our Legislature has the right to enact laws that will exclude from all schools, public and private, parochial, Sunday or other schools, all unvaccinated pupils or pupils who cannot present to the teacher, principal or superintendent a certificate of prior successful vaccination.

Quite recently I have endeavored to determine as nearly as possible the per cent of vaccinated children who are attending the different public schools of the State outside of the City of New Orleans, and in order to do this I thought that the health officers of the different parishes could, after consultation with the superintendents of public education of these parishes, give me the most reliable information. I had a letter written to fifty-seven health officers, and received replies from about thirty-five. I find that, notwithstanding the school law supposed to be in force, a per cent ranging anywhere from three to ninety per cent of the children attending the public schools of the State had been vaccinated, and those parishes having the higher rate of vaccinated children have caused this to be done within the past three months, and only then because of the threatened epidemic of smallpox in their parishes.

Now, there being a law to enforce vaccination only among children of public schools, and with this low per cent of vaccination, what per cent of children attending private, or no schools at all, for that matter could we safely count upon as having been vaccinated, and finally what percentage of adults? I hardly think we could count upon more than forty per cent total of vaccinated in

our State, and hardly has there been more than five per cent of this forty per cent re-vaccinated. Probably about two per cent of the people of the State have had variola, and this would somewhat increase the number of immunes. Fortunately smallpox has appeared in an unusually mild form for several years past, but surely the cause cannot be anything short of Providence, and because of its mildness we must not lose sight of the fact that a mild case is capable of reproducing in a most malignant form in an unvaccinated person.

DISCUSSION.

DR. M. C. REEVES, of Vidalia: I think every health officer in the State should take a great deal of interest in what Dr. Simmons has just said. I, myself, have experienced the same difficulty, and I am fully convinced from my own experience that we will never control smallpox without compulsory vaccination.

DR. B. A. LEDBETTER, of New Orleans: I think this is one of the most important questions that can come before this society, and it is one that should be taken up not only by every health officer and physician in this State, but by every individual in the State. Absolutely the only way that we will ever succeed in getting the people, especially the negro population, vaccinated will be by education. We have got to accomplish that through the white race. Unless we educate the white race to the importance of this thing and show them where it is to their interest financially to do so, we will never succeed in stamping out smallpox. There is not a gentleman in this room who does not recall that 4 or 5 years ago we almost had an epidemic of smallpox right here in our city of New Orleans. It is only a question of time before an epidemic will occur right here in this city, simply for the reason that we cannot reach the colored population. We can reach the white race here in New Orleans, but in the country parishes there are a great many children that do not go to school among both the white and the colored races, and those are the people we have to reach. We have to reach them through the white people and by educating the white race to the importance of this thing. And it has to be done through the physician. The physician has not only to take an interest in

this question, but he has to push it and educate his own people.

DR. GEORGE DOCK, of New Orleans: I think this is an extremely valuable and at the same time practical paper of Dr. Simmons', and it seems to me that it ought to be carefully considered, not only by all the medical profession, but, as Dr. Ledbetter has said, by every individual, especially by the authorities and all educated individuals in the State. The problem here is really not essentially different from what it is in all other parts of the United States. Notwithstanding our boasted intelligence, we are extremely backward in regard to vaccination. It is really a remarkable thing when we consider that the only parts under the rules of the United States that have good vaccination conditions are the conquered provinces or colonies. Hawaii, for example, has the best vaccination law of any district related to the United States. Porto Rico and the Philippines have been thoroughly vaccinated, and, owing to their condition, can be kept pretty thoroughly vaccinated. But in our own country we are very backward in relation to vaccination.

In the first place, in regard to the general enforcement of vaccination, the method of waiting until an epidemic comes, the method of waiting until children go to the public school, all those things are absolutely insufficient. As Dr. Simmons has said, children should be vaccinated as early as possible, and they should be vaccinated on a large scale; that is, practically every individual should be vaccinated and re-vaccinated.

Now, it is all very well to speak of compulsory vaccination, but it has been pretty thoroughly shown everywhere that something more is necessary than that. The good results in Germany did not come merely from enforcing in that military country a compulsory vaccination. Far from it. They kept up a continuous missionary movement for a great many years. The authorities—not only vaccinators, but other people, people outside the medical profession—wrote articles in the public press and the newspapers and magazines, and they had large numbers of circulars and booklets of all kinds printed, and they were able to get an enormous diffusion of knowledge regarding the scientific aspects and results of proper vaccination. That was the only way Germany got it. And if we think that interesting ourselves merely with the idea of the promulgation

of a strict law will give us satisfactory vaccination, we will find ourselves in a most serious mistake. Even in Germany, for example, they have a good deal of difficulty from the private vaccination, which is still permitted there. It is imperfectly done, and very often false certificates are given, and very often the vaccine is sucked out as soon as the doctor goes away, or very often the doctor himself carries out a fraudulent vaccination.

In this country we have a great many physicians who haven't the proper feeling in this regard, and we recognize what the result of vaccination by such men would be. You can easily see how illusory such a law, depending on such men, would be. So it is necessary to have educated official vaccinators in order to carry out the work.

Another important feature in regard to the vaccine material. In Germany they did not just depend on anybody to prepare vaccine and sell it to the medical man. They made an immense investigation of the best methods of raising, keeping and selling the best vaccine material. In this country the conditions are bad. Notwithstanding the improvement that was made in 1902, the vaccine furnished in the United States is extremely unsatisfactory. In the first place, it is not yet as free from bacterial contamination as the ordinary commercial vaccine that can be bought in any part of Europe. The very best in this country has been shown by government investigators to be very highly contaminated with bacteria, though usually not pathogenic. There is still no test of the potency of the vaccine. In Germany, France, England, Japan and every country where they have organized vaccination, they do not depend on the say so of the maker, but the vaccine must be tested, and unless it tests up very well it is not allowed to be used. In this country there is no official test, and the tests of the makers are absolutely worthless. For example, the method of some of the best makers is this: They furnish vaccine to public vaccinators for a small price and give them a premium on every successful vaccination. As a rule, the officials never see the patient after the first time, and I have seen them sign up cases as satisfactorily vaccinated that were either not vaccinated at all or else were vaccinated with inefficient virus. Now, when such a method of testing vaccine material is used, one can imagine what a serious error

enters into it. Then that vaccine material, tested in that imperfect way, is put on the market and shipped. And when we get it here in Louisiana, it has been on the road usually at least two days. If it is shipped in the winter time, it comes very often in overheated baggage or express cars. Whoever has traveled or has gone into such a car will realize that very often they reach a temperature of 85 to 90 degrees. If we want to vaccinate generally we should follow another method than that. There should be vaccine cultivating stations all over the country, so that vaccine for the South can be made near at hand and vaccine for the Pacific coast need not be shipped across the Rocky Mountains, and so on.

I would like to add that, besides Germany, a few other countries have general vaccination. For example, Japan has a most stringent law, requiring revaccination every five years. France has taken it up; Austria has taken it up; even such benighted countries as Spain, Brazil and Argentine are away ahead of us.

DR. CHARLES McVEA, of Baton Rouge: I have a suggestion to offer my friend, Dr. Ledbetter. I believe that the only way in the world to get people vaccinated is to educate them up to it, and I believe the best way in the world to do that is to do it with the moving picture show. I was in this work for about twelve years in my home town, and I thought about making up some films at that time, but the films five or six years ago cost a whole lot more than they do now. Now there is hardly a town in the State that hasn't one or two moving picture shows, and I notice when there is any killing or kidnapping or anything of that kind they have a houseful. If you will just have a small-pox night, and if you will have free moving picture shows, or if Dr. Ledbetter will prepare those slides, the doctors in the towns will be glad to have these shows. The moving picture shows are run by the negroes now, as well as the white people, and they would get the benefit of it just as well as the white people. The films do not cost very much. The Board of Health could pass them around from one town to another, and if they will show the different stages of vaccination and how simple and easy it is to take care of the arm, because there are a number of manufacturers that put out a good, safe vaccine, and I have never seen anybody lose an arm. Reports of bad arms

are always handed down by somebody in the community that heard about it somewhere. I have never known anybody to have any real trouble over it. I have seen a good many arms that were considered very bad arms, and I painted them with a 50 per cent ichthyol ointment and then dusted them with a little aristol and bismuth, and in three or four days the inflammation would subside. And if Dr. Ledbetter will think that over a little, I think he will find it a very good scheme.

DR. ALLAN EUSTIS, of Abbeville: I have been particularly interested in this paper, because in my parish I have met considerable opposition, not only among the negroes, but I also meet with opposition in bank presidents, insurance agents and the leading men of the town and parish. A good many papers like this are read, and we go home and forget about them. There is never any united effort made to carry out the plans suggested. We have a council, of which I am a member, and between meetings we have nothing to do. We are all anxious to do something, but there is no outlined plan for us. In view of that fact, I have written up a little resolution here, which I would like to offer at the proper time.

DR. I. H. LEVIN, of New Orleans: I would like to relate an experience that I had in St. Mary parish. When I first came there I found an epidemic of smallpox. At that time the town was not incorporated. There was some vaccination going on, but it was not organized. The number of cases reached over fifty, wholly in the colored people. The following year the town was incorporated and a Board of Health created. Another epidemic broke out and, while a good many of the town officials told me that I would have to use a pistol if I attempted to vaccinate the people, I did not encounter any opposition at all. I vaccinated every one of the negroes, and without any opposition. They all welcomed me. That was my experience, and I am glad to say the second year that I was there there was only one case, and that was segregated and cured. I believe that smallpox is not only epidemic at times, but that it is endemic in Louisiana. Vital statistics, so far as smallpox is concerned in this State, are absolutely misleading, because there are a great many cases in the smaller places never reported. The fault lies more in the loose organization of the parish health of-

ficials. They are simply too lazy. Just as long as those parish health officials are controlled by political affairs, just so long will this condition remain in Louisiana. Furthermore, the boards of education in the parishes are very derelict. The teachers will admit children to the schools whether they have vaccination certificates or not. I believe that if the board of education in every parish would try to do its duty and not admit any children without certificates, it would do a great deal in reducing the prevalence of smallpox in the State.

DR. PORTER: For the benefit of Dr. Eustis, I wish to say that the President of the State Board of Health expects to inaugurate a campaign of education throughout the State, and this is one of the subjects that will be thoroughly placed before the public. Dr. McVea's suggestion was a wise one, but I think that the only solution of this problem is the education of the public.

DR. E. M. ELLIS, of Crowley: Vaccination should be the slogan of the health officer of every parish. That is the only way of exterminating smallpox. I have been vaccinated fifteen times, and, due to faulty virus, have had smallpox once, so I know all about it. I acted as health officer for four years, and I never met any opposition among the negroes. I met more among the white people, even among the intelligent ones, than I did among the negroes. One case of smallpox in a parish will do more to get everybody vaccinated than all the laws you can pass.

DR. SIMMONS (in closing): I want to thank the various gentlemen for the discussion of this paper. The subject is a very important one, and nobody knows better than those of you who have been in charge of the health department of the various municipal and parochial governments of the State how very necessary is vaccination and with what great difficulty is this most important matter enforced.

Dr. Ledbetter spoke of educating the negro. You might as well tell me that it is possible for one man to change the course of the great Mississippi as to say that vaccination can be brought about by education of this race. The negro thinks that a smallpox pit is the most beautiful thing in the world and a badge that will admit him anywhere among his people.

Even some of our most intelligent whites are very much opposed to vaccination, and I am sorry to say that among our profession can be found some opposition and a great deal of "lukewarmness."

This condition of affairs is due more to the careless and indifferent way in which the medical men of this country vaccinate the people than to anything else. There is more neglected vaccination to-day in the South than there has been since vaccination was first introduced here, and you who come constantly in contact with smallpox in the negro and country people in general, who have been taught that a sore arm is a dangerous thing, know this yourselves.

It has not been three weeks since, to my knowledge, there occurred 13 cases of smallpox following the visit of a negro some 14 days before. Most of the doctors of this State refuse to report cases of smallpox, and within the last 12 months very few cases have been reported to the State Board. Furthermore, in one instance a doctor in Natchitoches parish told me that he and a medical friend had counted the number of smallpox cases in their community (within the last 12 months) and there had been about 500 cases. How many of these cases have been reported at all?

Dr. McVea's moving picture show will do very well to interest children; but if you want to interest the people of this State you've got to do something more than show them pictures. They see the actual cases walking the streets every day, and I'll venture to say that if you will go to the depots here and station yourself, it will not be three days before you will see a case come into this city.

As long as smallpox is allowed to run rampant through the State, how can we expect to get rid of it? Of course, the people are better vaccinated in the cities and towns because of the more stringent laws and better police regulations, but among the negroes in the country you cannot find a man who has been vaccinated unless it has been done by force—his employer compelling him to be vaccinated, or the health officer running him down.

Dr. Levin referred to the parish boards of health. I admit that they do not do their duty, but when we consider the great

loss of time and the poor compensation offered, we cannot expect them to give it the proper attention.

In referring to the board of public education, I wish to state that this is a very important matter. Presidents of the boards of education are usually in favor of the health laws regarding school children, but the methods of enforcing these laws are generally faulty. Children are required to furnish certificates of vaccination from their family physician, and the children will go to their physicians and secure certificates that they have been successfully vaccinated, and then are admitted to the school.

It is not that the doctor intends to do anything wrong, but he evidently does a great wrong when he allows the child to return to school on such certificates, without any evidence that a "successful vaccination" has been performed.

The discussion of this paper by Prof. Dock I appreciate very much, and the suggestions that he has offered, if carried out, would aid very materially in bringing about the enactment of compulsory vaccination laws.

I cannot close without expressing my gratification for the resolution offered by Dr. Eustis, and I can only hope that the position taken by this society will culminate in victory for the advocates of "Enforced Vaccination."

DR. B. A. LEDBETTER, of New Orleans, read a paper on

Vital Statistics.

One of the most important subjects that can come before this society for discussion is the collection and compilation of accurate vital statistics.

The standing of the State is only to be measured by the value it attaches to human lives. When we reflect that records are kept of all legal matters, howsoever trivial; that thousands in money are spent in recording everything else, material or immaterial, and that yet in practically all our Southern States except Maryland human beings are born and die without any noting of so important an event on the part of the law the thing is simply inconceivable.

Careful statistics are kept of all pedigreed horses, cattle and dogs, etc., and yet the record of the advent into life and the removal from this early scene of creation's lord is left to the mercy of dust and oblivion.

Stop a while to think of the untold wealth that is spent in recording the acreage of crops and studying the diseases that visit animals and plants; witness the brains, as well as money, that are devoted with so much energy toward contriving means of protection against the enemies of these things, and you will be struck with the fact of how little importance man attaches to the things that affect his immediate or corporeal welfare.

In Louisiana we have in recent years contributed lavishly in dollars in fighting the boll weevil pest, the cowntick, hog cholera and the ills that sheep and poultry are heir to. All diseases discovered among them are at once reported and every conceivable remedy vigorously applied. Yet not a single board of health of our Southern States can come anywhere near indicating how much tuberculosis exists among the citizens in its jurisdiction or how many persons succumb to this or any other form of disease.

At the present time only fifteen States in the Union, with a population of 33,719,264 souls, or less than two-fifths of the total population of the country, are accepted by the United States Census Bureau as having sufficiently complete returns of deaths to be entitled to admission to the "registration area" of the United States.

Of our Southern States Maryland is the only one recognized by the Census Department of the Federal Government as having an adequate system of the registration of deaths.

It is far more difficult to secure the registration of births than of deaths, mainly on account of the difficulty of prevailing on the doctors and midwives to report.

Outside the cities of New Orleans and Shreveport, the State of Louisiana has practically no vital statistics. The birth record is incomplete and unsatisfactory because of the defect in our law which does not permit of the enforcement of compulsory registration. Only a small proportion of the children born annually are reported and registered.

To emphasize this our records show that the total births of

the city of New Orleans, with its population of at least 375,000, are only 3,745 for the year 1908, of which number many were declarations of births for previous years.

Let us quote from Dr. Reynolds, former Health Officer of Chicago, in a public address in which he alluded to the importance of keeping an accurate registration of births, as follows:

“There is hardly a relation of life, from the cradle to the grave, which the evidence furnished by an accurate registration of births may not prove to be of the greatest value, as, for example, in the matter of descent, in the relation of guardians and wards, in disabilities of minors, in the administration of estates, the settlement of insurance and pensions, the requirements of foreign countries concerning residence, marriage and legacies; in marriage in our own country, in voting and in jury and militia service, in the right of admission and practice in the professions and to many public offices, in the enforcement of laws relating to education and child labor, as well as to various matters in the criminal code—the irresponsibility of children under 10 years of age for crime and misdemeanor, the determination of the age of consent, etc. As the country becomes more densely settled and the struggle for existence sharper, many of these matters which have hitherto been of minor significance will take on a deeper meaning and acquire greater importance. Hence the urgent necessity for remedy of the defects which prevent a proper registration of births.”

Public opinion, both medical and lay, has in several States of the North been fully aroused to the importance of accurate vital statistics, and, though I have heard legal minds of more than ordinary caliber indulge in ridiculing the necessity of such a thing, it was not generally the expression of forethought and deliberation.

If there is anything in the world more self-evident and palpable it is this thing of cause and effect existing between our ignorance of birth rate, death rate, accurate knowledge of sanitary conditions and the economical and industrial evils that follow. Because we are unable to say how many people are born and die within our borders the impression exists abroad that Louisiana is the graveyard of the United States. Yellow fever is declared to be endemic, malarial hematuria, Chagres and the

other pernicious types of fever are reputed to be prevalent, and this is so implicitly believed and charged against us that some insurance companies and fraternal orders will not entertain even the idea of writing policies in certain sections, while in many other sections they increase the rate, making it higher than it should be, in spite of the fact that the climate is ideal and health conditions most inviting, but where reliable data of an official character is wanting.

We can accomplish nothing by indulging in public encomiums on the beauties of our country and the guarantees offered by its climate to the newcomer. Magnificent descriptions from the public platform and elaborate articles from the fluent pen of the editor are so much wasted time and energy as long as they are unsupported by figures and facts. We can offer nothing in rebuttal to offset the arguments that the timid stranger advances through ignorance or our neighboring commercial competitors wilfully concoct as long as we remain without data. Immigrants to any country always examine the mortuary statistics of proposed destination, and when they fail to find any records conclude that the death rate is so high that the State is afraid to publish it.

Interested immigration agencies have been circulating in Europe and the North the most infamous lies in regard to the bad health conditions of the South, and the lie sticks because no evidence can be offered in rebuttal, and thus we lose millions in capital and labor that would swell the coffers of Louisiana and add to her taxable and assessable wealth; and then, again, our own people, not having this data, fail to recognize the economic gain that flows from municipal sanitation, as we have no figures to prove it.

How shall vital statistics be registered? Many bad laws have been passed for this purpose in many States, mainly on account of ignorance. Many methods have been used to obtain the registration of births and deaths through assessors and supervisors. Physicians have been requested to report directly to the health officer of his parish and the health officer to the State Board of Health.

As a member of the State Board of Health of this State, it has been my experience that it is simply a waste of time and money

to attempt to collect records of births and deaths in any other way than by immediate registration and prompt return to a regular official appointed for that special service, and not through a parish health officer; burial permits must be required by law and a penalty imposed upon anyone who removes a body until a proper certificate has been officially recorded.

A most excellent bill has been drafted by a conference on medical legislation of the American Medical Association, approved by the American Medical Association, American Public Health Association and by the United States Census Office.

It is my opinion that this bill meets all the requirements and should have the indorsement of the Louisiana State Medical Society. It is our intention to have such a bill introduced at our session of the State Legislature.

Let us as medical men and citizens, imbued as we are with a sense of apprehension of the dangers that await the country on account of negligence or disregard on the part of the general public in matters of sanitation and vital statistics, assume in common the task of impressing upon our government the imperative necessity of enacting laws which will remove the unsavory reputation with which the world regards us. By acting in concert, I know that we can accomplish this object. I feel that any enlightened legislature will welcome with pleasure the wise suggestions coming from men who, like yourselves, have spent their lives fighting disease and observing the effects of environment and climate upon life.

DISCUSSION.

DR. LEDBETTER: Every member of the new Board of Health recognizes the importance of this question. We have been trying every method to reach the midwives throughout the parishes; we have tried all sorts of methods. We have mailed every doctor in the State a postal card with a sample report on it, requesting him to report to the parish health officer weekly or monthly, and then require the health officer to report to our State Board quarterly. We have not been able to get a single report from half of those parishes, and of the physicians in a parish not one-fifth or one-tenth has paid any attention to this matter. We have threatened them by law-

suit. They pay absolutely no attention to our Secretary's letters sent them.

I want to say this in closing: I know we have some health officers here to-day, and I hope this does not apply to anyone present. It is a shame and a crime that any doctor who calls himself a physician should accept such a position and treat these matters with contempt. I say it is a shame and a disgrace to the medical profession. The fault lies with the medical profession more than with anyone else. You talk of educating the people; how can you blame the people when the physicians themselves neglect these important questions? It is a shame that a medical man is so derelict in his duty.

DR. E. K. SIMS, of Donaldsonville: Having had some experience as health officer of my parish and at another time as coroner, I know that the reports of vital statistics throughout the country parishes are an absolute farce. I believe that it is a good thing for the State of Louisiana, under the present system, that these reports are not made, because if they were the death rate would far overshadow the birth rate. Every little negro settlement has its negro church, and behind that church is the negro burial ground. There are numbers of both babies and adults buried in those cemeteries who have never had a single visit from a physician. I adopted the illegal measure of threatening the custodians of those cemeteries with prosecution if they did not report to me whenever there was a burial in any of the grounds they had supervision over. In that way I got pretty good mortuary statistics in Ascension parish. On the other hand, we have nine-tenths of the old grannies practicing midwifery who are not registered, and whom we could not reach. It was a whole lot easier to reach the dead than it was the living, and for this reason it is a mighty good thing for the good name of Louisiana that the vital statistics, under the present system, are not better reported. I believe that the only proper way of getting at this is for the State Board of Health to use their endeavor in having a law framed making it a misdemeanor in case of failure to properly register with the parish board of health or with the State Board of Health any birth or any death that may occur. That is the only possible way in which we can get proper vital statistics in the State of Louisiana.

Having had some experience as an insurance examiner, I want to say that the State of Louisiana is suffering to a great extent from lack of insurance on account of its very incomplete vital statistics. There are many insurance companies which either limit the amount of policy that is extended to the insured, or won't insure in the State at all. Now, that is a question that appeals to the pockets of the physicians in this State. Every single physician ought to make it his duty and use his influence toward bettering the vital statistics from that standpoint if from no other, because the more insurance in the State the more profit to the physician. It is a matter of pride and a matter of duty to the physicians to make it so that the State Board of Health when called upon to furnish vital Statistics to other parts of the country can show that Louisiana is not, as it is supposed to be, one of the most unhealthy States in the country, but, as a matter of fact, one of the finest health resorts in the Union.

DR. I. H. LEVIN, of New Orleans: When I was in the country I tried to report every birth I could. When I came to the city and had my first obstetric case I wanted to do likewise, and I went to the city Board of Health and wanted to report the case. When I went to fill out the blank I had the mother's name and the father's name, but I found they wanted the mother's maiden name and the birthplace of mother and father, which I did not know. I think there are too many unnecessary questions asked on these blanks.

DR. R. O. SIMMONS, of Alexandria: As Dr. Ledbetter said in his paper and as Dr. Sims has said, vital statistics are extremely important, and it is a crying shame that we have no vital statistics at all.

Every few days I am written to by insurance people or some corporation in a foreign state, asking me for our vital statistics, and I am unable to give them, because where a few physicians in my parish send in reports there are forty others who do not, and, besides, there are the numerous midwives in every community who never have sent in reports.

Every death in the parish, with few exceptions, is reported, but about one-twentieth of the births. It is a very serious proposition, and if the State Board of Health make their report known to the outside world immigration will never come our way.

We cannot expect capital to invest in our State under those circumstances.

As our president-elect is a member of the State Senate, I think this will be an excellent field of work for him. There should be a law passed forcing not only the doctor, but every parent should be held accountable. As Dr. Ledbetter said, I believe it would be better to have special officials to whom these reports should be made, because some have a horror of reporting to the Board of Health. The law as it stands to-day is a farce. You can punish the physician, but what health officer is going to have his brother physician punished? They are not going to do it.

DR. J. T. ABSHIRE, of Abbeville: The position of health officer in a parish to-day is an embarrassing one. It is not only thankless, but it is really dangerous. We had a good health officer some years ago, and he made a determined effort to obtain returns from the physicians of my parish. The result was that he was almost assaulted by one physician in the streets of Abbeville. He immediately resigned, and since then we have never been able to get a doctor to accept the position. I believe that unless you instruct the physicians themselves on the necessity of reporting to and respecting the health officer, you might just as well not try to enforce such a law at all. As a matter of fact, last year my parish society recommended me for appointment, and I reluctantly accepted, and I have not yet seen the appointment, which will show you how much interest doctors and all concerned take in vital statistics. As far as midwives are concerned, they do not report one case out of a hundred. They are all ignorant, they are working among ignorant people, they do not know how to read and write, and it is physical impossibility to make those people report births. You can educate the physicians, but you cannot educate the midwives.

DR. E. J. GRANER, of New Orleans: This subject is interesting, and an important one to the State of Louisiana. In the discussion we have heard the experiences of some of the health officers, and it seems to me that the health officers are all right, but that the system is all wrong. Not only in Louisiana, but in all the Southern States, with one exception, as I understood from the doctor's paper, these reports are bad. Now, I

know it is a fact that in Louisiana the death rate, according to insurance figure, is fully twenty per cent higher than it is in some of the Northern States. Whether that is due to bad examinations, the acceptance of bad risks, or whether it is the general run of the population, I do not know.

DR. W. L. GRACE, of Plaquemine: I think if the physicians in every parish would get a list of those who have been buried and send the list in every six months, or even once a year, it would help the health officers to a great extent, and it would enable them to get more statistics than we now have. The physicians have lots of time when they are riding around, and it would be very easy for them to stop and pick up these notes and give them to their health officer.

DR. E. DENEGRÉ MARTIN, of New Orleans: I believe that there is no profession imposed upon so much as the medical profession. We do enough, and not until a properly paid officer—and he need not be a physician—is paid to go around and take the statistics will we have any correct report. I think when such a law is passed and such a man is paid for his work we will get what we want.

DR. LEBBETTER (in closing): I would like to say that Dr. Martin drove the nail clear down. It is absolutely useless to try to get any statistics under our present law. The only way we will ever get it is, just as Dr. Martin has said, by having a special registrar appointed and paying him well for his services.

DR. E. L. McGEHEE, of New Orleans, read a paper on

The Work of Louisiana Anti-Tuberculosis League—History of the Louisiana Anti-Tuberculosis League.

Impressed with the necessity of an organization on the part of the profession and the laity in the campaign against tuberculosis, Drs. Quitman Kohnke, Fred Loeber, of New Orleans, and Dr. J. C. Ducoté, of Cottonport, La., and the writer joined in 1895, in Atlanta, Ga., the American Anti-Tuberculosis Association. The president, Dr. Geo. Brown, of Atlanta, appointed Dr. Q. Kohnke and myself vice-presidents with the commis-

sion to organize in the State of Louisiana. The importance of the work was agreed to by every medical man approached, but each had some reason why he could not take active interest. Not until November 26, 1906, by the aid of the Women's League of New Orleans, was the Louisiana Anti-Tuberculosis League organized. Being anxious to be associated with the best organized body arrayed against the white plague, we joined the National Association for the Study and Prevention of Tuberculosis and resigned from the American Anti-Tuberculosis League. The Louisiana Anti-Tuberculosis League is now a part of a grand organization which is international in its scope.

The need of this work is so universally acknowledged and the enthusiasm of the intelligent in this campaign is such as to enable the few workers, with little means, to accomplish in the two years, the work, as shown by our annual reports. The newspapers have proved a faithful ally, and have assisted very materially from the beginning. Fraternal organizations have responded. Education has thus far been the keynote of the campaign. Legislation would be futile unless backed by public sentiment, which can only come by education. In this department of the work, the hearty co-operation of the superintendents of education, State and municipal, has been of great value, enabling the league's representatives to address nearly every public school, both white and colored, in this city; also the teachers' institutes in many parts of the State.

Branch leagues have been formed in sixteen parishes. The following letter has been sent to every parish medical society in the State:

President of... ..Society:

DEAR DOCTOR—Doubtless you know of the work carried on by this League. It is necessary for its success that the co-operation of the medical men throughout the State be enlisted at this stage of the campaign.

The work of education is receiving most attention. The League sends a lecturer, and is now prepared to give illustrated lectures to any Teachers' Institute or public gathering in any part of the State. Is it possible, through the influence of your Parish Society, to get an audience where the lecture may be given and a Branch League organized?

The railroads have furnished transportation to our representatives, but there are other expenses that the League is not prepared to meet. We do not wish the medical men to be taxed for this purpose, but would suggest that the County Supervisor or the Alderman of the town may see

fit, through the influence of medical men, to appropriate such as needed of the public funds to defray actual expenses.

The plan is not only to give stereopticon lectures, but to have some pathological specimens and other exhibits that would be instructive to the laity. It might be well in each town to give two lectures—one to the whites and one specially to the colored people. Possibly churches will join this good work and give up their buildings and help to secure an audience.

It is the earnest desire of the League to establish Branch Leagues in every parish, and thus be thoroughly organized, so that our requests to the State Legislature for proper recognition of and appropriation for this work will receive consideration that this important matter demands.

If possible, please bring this before your Association and be prepared to report at the meeting of the State Medical Society next month.

(Signed) E. L. McGEHEE, *President.*

The duty of the medical profession in educating the public in scientific medicine was forcibly presented at the last meeting of the American Medical Association by the distinguished president, Dr. H. L. Burrell. This new phase of development adds greatly to our responsibility. The physician is no longer simply to alleviate human suffering. Science has placed in our hands knowledge with which to prevent disease, and it is our duty to disseminate these demonstrated truths. No hygienic advancement can be made unless people are educated to see the need thereof. "Judicious publicity is a new duty of the medical profession to the laity," says Dr. Burrell. Great discretion should be used in selecting and in presenting subjects concerning medicine and its progress. No mooted question should be discussed before the public; they should be made to think, and not be needlessly apprehensive.

Tuberculosis is the most pertinent subject on which information should be given. We must have intelligent co-operation to make our work effective. Of its pathology and etiology we can speak in no uncertain sound. The public should be taught that the hopeful prognosis depends upon early recognition. Also should be informed of what has already been accomplished by the public in co-operation with physicians in controlling tuberculosis in Edinburgh, Scotland, in Germany and in New York, Pennsylvania and other States.

We of Louisiana who took part in controlling yellow fever in 1905 should be encouraged in educating the people in facts concerning infectious diseases. Let them know when any preventible disease is contracted that a sanitary crime has been committed. Fortunately the public takes great interest

in everything concerning medicine and its progress. Free lectures to the public is a most useful method of spreading information on medical subjects, but the most potent means of educating the public in sanitary matters is the family physician. The lecture committee of the league is active. Calls for lectures are constant and from various parts of the State.

It has been the policy of the league to answer all calls to colored as well as to the white citizens. The league is truly indebted to the medical profession for responding so promptly to every call. Some have sacrificed their own interest to speak in different parts of the State.

A shack sanatorium for early stage cases has been established in St. Tammany parish, 45 miles from New Orleans. There was donated by the St. Tammany Health Homes Company to the league a tract of 50 acres of land in St. Tammany parish, 45 miles from New Orleans. The land is exceptionally adapted to the purpose intended. It is in the recognized Ozone Belt; most of it is dry, high and covered with growth of pine varying in density, and with an artesian well free from excess of minerals.*

* Certificate of sanitary analysis (No. 1341) of a sample of water labeled "St. Tammany Well Water," from E. L. McGehee, M. D., for the Louisiana Anti-Tuberculosis League. This water is from a well 730 feet deep.

Analysis expresses as parts per million:

Total solids	253.8
Organic matter	Trace
Hardness, Calcium Carbonate equivalent	20.0 (Soft)
Oxygen consuming power	0.95
Chlorine	5.6
Free Ammonia	0.24
Albuminoid Ammonia	0.02
Nitrogen as Nitrites	None
Nitrogen as Nitrates	None
Odor	None
Taste	Normal
Condition	Clear, colorless, no sediment

Remarks. With the exception of its high free ammonia content, which exists in all deep-well waters, which is in the form of inorganic salts, this water is an exceptionally pure water from a sanitary chemical standpoint.

Respectfully submitted,

(Signed) Dr. A. L. METZ.

Certificate of mineral analysis (No. 1341) of a sample of water labeled "St. Tammany Well Water," from Dr. E. L. McGehee for the Louisiana Anti-Tuberculosis League. This water is from a well 700 feet deep.

Analysis expresses as grains per U. S. gallon:

Lithium Chloride	0.004
Ammonium Chloride	0.043
Potassium Chloride	0.249
Sodium Chloride	0.284
Manganese Sulphate	0.452
Sodium Sulphate	0.441
Sodium Bi-carbonate	10.040
Calcium Bi-carbonate	1.345
Calcium Silicate	0.145
Silica	2.842
Iron and Aluminum Oxides	0.099

15.944

Less water of combination

1.224

Total solids

14.720

Remarks. This is a sodic calcic bi-carbonated water. Respectfully submitted,
(Signed) Dr. A. L. METZ.

The well supplies 375 gallons pure, soft water per minute; throws it with force enough to supply every cottage and flushing with force the sanitary closets.

At a distance of 75 yards in a circle around this well are seven two-room cottages with broad galleries and sanitary closet in each, have been constructed in a beautiful pine grove. In memoriam of departed loved ones, other buildings have been built and lumber given for more cottages is on the ground. We have also a pavilion for rest and open air, with which dining room, kitchen and store room are connected. We have a garden and stable, cows and chickens, and are gradually extending and improving buildings to meet the necessities of the camp and its inmates.**

* Miss FROMHERZ'S REPORT: Our Louisiana Anti-Tuberculosis Camp in St. Tammany was opened about one year ago with 14 beds. Many contingencies have prevented enlargement, but soon the capacity of the camp will be increased. Since that time we have received 40 cases. A condensed chart of 31 of these cases is appended to this report. Seven of these cases have been received recently, so that their record would not justify any conclusions as to the result of treatment; 3 others who do not appear were cases in the third stage, who were allowed to remain a few days before claimed by death. They had been told that fresh air was the most important consideration, and, hearing of the camp, they came without invitation and presented themselves, and we did not have the heart to compel them to leave. The fact that we have to reject third-stage cases is not understood by the public, and, until there is a hospital for such cases, the League will be subjected to criticism. Our medical friends can readily understand the necessity of such regulations. The benefit of sanatorium life is clearly demonstrated by a study of the charts presented. Though few of these patients were in the first stage, nearly all of them have increased in weight and in strength, and temperature and cough have disappeared.

- No. 1. Still in camp; poor digestion; gained 10¾ pounds.
 - No. 2. Stayed 73 days, gained 15¼ pounds; discharged apparently cured.
 - No. 3. Stayed 63 days, gained 7¾ pounds; discharged apparently cured.
 - No. 4. Stayed 71 days, gained 15½ pounds; discharged for parturition.
 - No. 5. Surgical, rib resected, gained 5 pounds; still in camp.
 - No. 7. Left Camp.
 - No. 8. Three months in camp, gained 14¾ pounds, normal temperature; no cough; discharged apparently cured.
 - No. 11. Still in camp, gained 8 pounds.
 - No. 12. Stayed in camp 10 months, gained 14½ pounds; resumed work; not cured.
 - No. 15. Stayed 9 months; discharged apparently cured.
 - No. 20. Stayed 5 months, gained 15¾ pounds; discharged apparently cured.
 - No. 21. Still at camp, gained 7¾ pounds; improving.
 - No. 23. Stayed 55 days, gained 12½ pounds; left camp.
 - No. 24. Stayed 60 days, gained 20¾ pounds; apparently cured; discharged.
 - No. 25. Stayed 3 months, gained 16 pounds, discharged apparently cured.
- Remarks. Average time in camp, six months; cost per capita, about \$5.00 per week.

Patients to the camp are admitted by the medical committee after examination by an expert as to their fitness for the camp treatment, and if there is a probability of their being improved thereby. No cases were sent over who did not show T. B. in their sputum; about 40 per cent have been apparently cured. The pre-tubercular cases have not been presented; in fact, 80 per cent of cases examined are in second or third stage. The value of early recognition and honest acknowledgement to the patient is of vital importance.

Accurate and full records are kept. The examination of the patients is repeated from time to time and records compared in order to judge of the lung lesion as well as of the general condition. Simple needs of the patients, good food, fresh air, rest and sunshine are faithfully supplied. The camp is in almost perfect sanitary condition. All sputum is consumed in a fly-screened crematory. Like the agricultural college to the farmer, so is the sanatorium to the sanitarian. A most valuable means of instruction, each patient leaves with practical knowledge of the prevention of tuberculosis.

In addition to our sanatorium, it was decided that by our limited means we could do most good and benefit the largest number of people by establishing a free clinic, where all cases would be reported and classified according to stages, first stage, sanatorium cases, second stage home cases and third stage hospital cases. Ninety per cent of all cases presented belonged to second and third stages and were most needing attention, not only to be supplied with milk and eggs at their homes when unable to provide for themselves, but to have the district nurse visit their homes to make them as sanitary as possible and thereby prevent infection of other inmates of the house. All such cases are reported to city board as soon as positive diagnosis is made.

The ambulatory cases are on entering the Free Clinic examined and classified—records of names, addresses and facilities for carrying out treatment, weight and history. They are supplied with paper napkins and bags and educated in the fundamentals of prophylaxis, so that they may no longer be focuses of infection. We have a large corps of clinic physicians and district physicians who kindly give their valuable services. The results in some cases of home treatment have been surprisingly gratifying. The railroads have been our friends in this fight, in response to this most urgent call of humanity giving us passes to those in service of the league and to lecturers in any part of the State. The city railways give a free pass to the district nurse. The importance of the nurse's work cannot be overestimated. Ignorance more than poverty is the friend of consumption. As the secretary of the Providence League expresses it, "The constant visiting and the

personal interest given by the district nurses in the homes does more than could be done by all other efforts combined.”

Two hundred and twenty-five cases have received attention at the Louisiana Anti-Tuberculosis Free Clinic, at 1309 Tulane avenue, which has been in operation only six months, beginning November 2, 1909.

The further purpose and aim of the league is to get some philanthropist or the State to provide a place of refuge for poor people in the advanced stage of tuberculosis, where they will not only receive proper nursing and medical care, but will be prevented from endangering the health of others.

The greatest need of this State to-day is a hospital for advanced cases. Our great Charity Hospital does all it can to segregate and accommodate the third stage cases, but it is not fair to those cases nor to the institution to put them there under present conditions.

The health boards are doing what they can in this matter for the public safety, disinfecting premises, giving sanitary instruction, posting anti-spitting ordinances, etc. There are some medical men who decline to report cases and thus prevent the health officers from accomplishing more to prevent consumption. The mortuary report of New Orleans for 1908 shows a decrease of 93 deaths from consumption compared with the previous year, which reduction is due to the organized effort of the league, which has only begun. Edinburg, Scotland, has reduced the death rate four-fifths. Why cannot New Orleans do the same and save 800 lives each year?

An appropriation from the State for the care of those afflicted and for the prevention of tuberculosis is an imperative duty of the State and will be discharged if the guardians of public health are organized.

When we complete our chain of institutions for the care of consumptives by and with the addition of a hospital for advanced cases, we shall expect as good results as Germany or New York have obtained.

The means to carry on this crusade has come from free will offering of our kind-hearted citizens. Save the rent of our clinic, which is paid by the city, with business judgment and jealous care have the funds been dispensed, and none of the

workers have received any pecuniary compensation for the work done.

I feel that this showing justifies the hope that this cause will receive the support of the Louisiana State Medical Society.

DR. GEORGE W. ROBINSON, of Shreveport, read a paper on

The Symptomatology of Empyema of the Frontal Sinus.

In the premises it may not be out of place to disabuse our minds of the idea that, from certain subjective and objective signs and symptoms, we are at once in a position to readily diagnose frontal sinus empyema. This becomes more apparent the more closely we study the structural and relational anatomy of this accessory cavity, not omitting many cases of supposed frontal sinus empyema, which, when operated, prove to be not frontal sinus empyema at all, but empyema of an abnormally placed or abnormally enlarged anterior ethmoidal cell. If the frontal sinus were invariably present, uniform in size and always infected singly as opposed to simultaneous involvement of one or more of the other nasal accessory cavities, the difficulties attendant upon a proper interpretation of its symptomatology would be greatly simplified.

It is only within comparatively recent years that scientific laboratory and clinical research have given to this subject the importance it deserves, and out of the chaos has evolved a technic which enables the surgeon more positively to make a diagnosis.

The frontal sinus, one on either side, is the highest and most anteriorly placed of all the accessory cavities of the nose. It is pyramidal in shape, with its base in apposition to that of its fellow of the opposite side, its apex outward, its long axis lying in a plane outward and slightly upward in the direction of the supra-orbital ridge of the frontal bone, resting between the two plates of the latter. Its size varies from that of one cubic centimeter to that whose length extends from the median line outward to the external angular process of the frontal bone, and whose antero-posterior diameter extends from the supra-orbital ridge almost to the sphenoidal fissure. Sometimes it is altogether absent on one or both sides from

arrest of development. Its posterior and inferior walls are thin and dense, the anterior wall much thicker—about one-quarter of an inch. At the antero-infero-internal angle of the sinus is to be found the opening of the fronto-nasal duct, the latter passing downward, backward and slightly inward, emptying into the infundibulum, the hiatus-semilunaris and thence into the middle meatus of the nose. Posterior to this duct lie the anterior ethmoidal cells and bulla-ethmoidalis, a few of the anterior ethmoidal cells frequently lying external to it.

The anterior ethmoidal cells likewise drain into the middle meatus, as, also, does the maxillary sinus, whose ostium is situated high up along its inner wall—at the inferior extremity of the hiatus semilunaris and in front of the bulla-ethmoidalis. We see, then, that the frontal sinus, anterior ethmoidal cells and maxillary antrum drain into the middle meatus. On the other hand, the posterior ethmoidal cells and sphenoidal sinus empty into the superior meatus. This distinguishing feature is important when it comes to making a tentative diagnosis based upon the presence of pus in the nose.

The olfactory cleft or fissure is that space lying parallel to the septum and immediately beneath the cribriform plate, thus communicating with the brain.

Having briefly reviewed the anatomy and relationship of the frontal sinus, we are now prepared to take up its symptomatology in disease.

Luc has pointed out that empyema of the frontal sinus is usually accompanied by a similar involvement of either the anterior ethmoidal cells, the maxillary antrum or both; hence, as stated in the earlier portion of this paper, it is not a simple matter to state offhand that one sinus is involved to the exclusion of the other.

There are symptoms, objective and subjective, common to all, varying in considerable degree for the same cavity in different individuals and even, at various times, in the same individual. The symptoms (most if not all of them) are largely dependent upon the condition of the drainage—whether free, or, on the other hand, partially or completely obstructed—as from a swollen, thickened mucous membrane, granulomata, polypi, an abnormally enlarged bulla-ethmoidalis, a cystic middle turbin-

ate, a bulging inner antral wall or a deflected septum. Right here it may be well to state that the deformity of the latter may be so extreme as to preclude absolutely the possibility of a visual or tactile examination of the nasal space.

For convenience the symptomatology may be divided into subjective and objective:

Subjective: The patient most often consults the surgeon because of pain, of a sharp, shooting or of a constant, steady character, located over the orbit or extending across the forehead; or the pain may be radiating. If the case is of some standing, the discomfort may be likened to a sensation as of fullness, throbbing or pulsation. Again, the pain may have its origin in the eye of the affected side, soon spreading to the other, made worse by any attempt to use the eye for near work, and not relieved by sleep. In the stooping posture these frontal pains or discomforts are aggravated.

Dizziness and attacks of sudden darkness of vision, mental depression, inability to concentrate the mind, perversion of the sense of smell, cacosmia or anosmia may be present.

From an extension by continuity the mucous membrane of the Eustachian tube and the middle ear may be involved, with resultant middle ear infection and possible mastoiditis.

There may be marked interference with nasal respiration on the affected side, while, in the open form, one of the most distressing symptoms is the constant presence of pus in the nasal space, or its overflow along the nasal floor into the nasopharynx. While the posterior wall immediately in front of the anterior lobe of the brain is extremely dense, it is at the same time very thin—sometimes not more than one line in thickness—so that it is to be wondered at that in suppurative conditions of this cavity erosion or perforation of its wall, with meningitis or brain abscess, is so infrequent.

Objective Signs and Symptoms: These may be classified as, 1, Extra-Nasal; 2, Intra-Nasal.

Extra-Nasal: If the case be one of closed empyema we will most likely find symptoms common to inflammations in general, such as redness, heat, swelling and pain. Should the anterior wall become perforated, as it sometimes does, the pus will escape beneath the periosteum or beneath the subcutaneous

tissue and, dissecting its way along their planes, give rise to marked edema, discoloration and deformity.

Tenderness, in either the acute or chronic form of frontal sinusitis, can almost always be elicited by pressing the tip of the index finger well backward under the floor of the sinus at its inner angle. Tenderness elicited by pressure over the lachrymal bone or over the os planum immediately behind would indicate involvement of the anterior ethmoidal cells which lie directly beneath the nasal portion of the floor of the frontal sinus.

As an aid to the surgeon in the examination of a suspected case of frontal sinusitis, special apparatus should be used, but, even at the best, these tests should always be looked upon as adjuvants and not solely as instruments of precision. Reference is had to the Trans-Illumination Test and to Skiagraphy.

The Trans-Illumination Test: In a perfectly darkened room, with a miniature incandescent electric light placed in the patient's mouth and with the latter closed, the surgeon notes the effect of light and shadow and from this tentatively decides as to the probable condition of the maxillary antrum. Should the area just below the lower eyelid be perfectly translucent as compared with the other side, and should there be present the red fundus-reflex as seen by the surgeon, together with the subjective sense of light when the patient's eyes are closed, it is merely presumptive evidence that the maxillary antrum is not involved. This test as applied to the frontal sinus is even more unreliable than when applied to the maxillary antrum, probably because of the difficulty experienced in introducing the hard rubber or vulcanite tip (which shields the light when used on the frontal sinus) a sufficient distance beneath the floor of the frontal sinus at its inner angle. What we would expect here, however, should this sinus be involved, would be a shadow instead of translucence along its interior wall. Both sides should be examined simultaneously or consecutively for sake of comparison. The test is not altogether reliable, for the reason that, with pus present, we may get a perfect trans-illumination due to the pus being so small in amount as merely to coat the floor of the cavity, or, the walls of the cavity may be unusually thin. On the other hand, pus

may be absent and the test yield *positive results*, as when the bony walls are thick and dense, the mucous membrane swollen or thickened, or when there are bony growths, granulomata and the like, or in case the sinus is absent.

Skiagraphy: In its present state of perfection skiagraphy yields fairly uniform results, and nearly all the large hospitals and many private offices and sanatoria are equipped with apparatus necessary for the taking of exposures.

If the exposure has been properly performed the diseased sinus will show its walls ill-defined, while the space within will have a murky-like or veiled appearance—it will be lacking in that distinctness of pattern characteristic of the healthy sinus.

Should the sinus be absent the skiagraph will unmistakably reveal the fact.

Intra-Nasal Objective Symptoms: Inspection of the nasal space will reveal the presence or absence of pus, its color, odor, quantity and its point of exit or lodgment; also the condition of those structures constituting the outer nasal wall—such as the variations from the normal of the inner antral wall, bulla-ethmoidalis, precessus uncinatus and middle and inferior turbinatis.

Posterior rhinoscopy should reveal the probable condition of the posterior ethmoidal cells and sphenoidal sinus. Should we find pus coming away from the middle meatus, not especially foul in odor, the careful use of the probe detecting neither roughened bone nor polypi, and if, after carefully wiping away every trace of pus from the nasal cavity, we place the patient in a posture with the head thrown forward and with the diseased side uppermost for several minutes, and then, upon re-inspection, find no return of pus, we would have additional evidence of the absence of pus in the maxillary sinus.

Posterior rhinoscopy yielding negative results, and the probe, cautiously used, failing to detect roughened bone in the superior meatus or sphenoidal sinus, we are in position to state with considerable certainty that we are dealing with a case of simple frontal empyema. If now, with or without amputation of the anterior extremity of the middle turbinate, we introduce a canula, irrigate the frontal sinus and find pus, the diagnosis is complete.

Differential Diagnosis: This brings us, then, to the point of differential diagnosis—diagnosis by exclusion or elimination. In any case where the history is more or less obscure and where the objective signs and symptoms are such as to make it uncertain whether we have to deal with simple frontal sinus empyema or with frontal sinus empyema in combination with empyema of one or more of the other accessory cavities, it becomes imperative that we proceed carefully and methodically with the examination of each sinus in turn, intelligently weighing and comparing the data as we find them, and from the tabulation thus obtained base our conclusions. It may be proper to add that in addition to the postural test for the detection of pus in the antrum of Highmore, it is always wise to irrigate the cavity through a puncture made from the inferior meatus, under local anesthesia. The medium for irrigation may be sterile water or a sterile normal salt solution, the nasal cavity having been previously wiped dry of any secretion. A positive or a negative result naturally implicates or excludes this sinus. The same procedure should be carried out in reference to the sphenoidal cells and anterior ethmoidal cells. Authorities differ widely as to the feasibility of catheterizing either of these sinuses. Some state that in the majority of cases this can be done without removing the middle turbinate for the catheterization of the sphenoidal cells or of the anterior extremity of middle turbinate for the catheterization of the anterior ethmoidal cells and frontal sinus. Special canulæ with special curve have been devised for probing and irrigating the sphenoidal cavity.

To the writer, even with the nasal space in a fair state of patency after the use of cocain and adrenalin chloride solutions, catheterization of the sphenoidal and frontal sinuses has most often proved a failure. So that when in case of purulent ethmoiditis with the bulla-ethmoidalis much distended and overlapping the hiatus semilunaris, with polypi, it may be, filling the middle meatus, the middle turbinate probably cystic or the septum deflected toward the diseased side—when under such conditions the surgeon attempts to probe or catheterize either the sphenoidal cell or the frontal sinus he is doomed to meet with failure. But, even so, those very conditions have their

advantages—there should be no hesitancy in removing such diseased tissue and, in so doing, pave the way for further exploration.

DR. HOMER DUPUY, of New Orleans, read a paper entitled

Pathologic Relations Between the Frontal Sinus and Affections of the Eye.

Since the presentation of a preliminary report on this interesting subject by me before the society at its 1907 meeting I have continued my work along this line. To the data furnished me then by Dr. H. D. Bruns, with my own case records, I am able to add more material upon which I have based these generalizations. I am not prepared to say that the frontal sinus deserves the brunt of the blame in most eye diseases due to sinus affections. The relation of the sphenoid sinus to the optic nerve and the cavernous sinus, with improved methods of reaching the sphenoid sinus, bring a new factor within the field of our observation.

At the very outset I wish to emphasize that in the majority of cases the pathologic changes in the sinuses were actually suppurative. Deficient drainage through the natural outlets was an invariable condition. Its presence and the degree of occlusion resulted in proportioned aggravation of the ocular symptoms. I repeat what I said two years ago, "that in no instance could I trace a causal relation between certain obscure eye symptoms and a mere irritation of the lining membrane of the sinuses due to deficient irrigation of the contained mucus."

Chronic frontal sinusitis is not usually an isolated affection; the anatomical reasons for this are (1), the proximity of the anterior ethmoid cells to the frontal sinus; (2), the nasofrontal duct is in many instances the common outlet of both the frontal sinus and the ethmoid cells (anterior). In long-standing suppurations of either cavity there is a tendency toward involvement of the contiguous sinus—clinical evidence supports this contention and more recent developments in frontal sinus surgery aim at not only exposing the frontal sinus, but also at reaching the ethmoid cells.

TABLE—DR. DUPUY.

COLOR	SEX	AGE	PAIN	SINUS	EYE CONDITION	VISION	TREATMENT OF SINUS	VISION AFTER TREATMENT	RESULT
C	M	30	Supra-orbital Left side	Of Left Side	Nothing noted in record	Before treatment R. E. $\frac{20}{xx}$ L. E. $\frac{20}{xx}$ same	Intra-Nasal catheterization		
Bruns	F	48	Over both O. U. very severe	Left Side Pus in Mid. Meatus	Pale disc Arteries much smaller than veins—L. E. oedema of upper lid	R. E. $\frac{20}{xx}$ L. E. $\frac{20}{xl}$	Extra Nasal frontal Sinus op. post. wall perforated, meninges exposed		Died of meningitis 12 days after operation
Bruns	F	32	Headaches	Left Side Pus in Mid. Meatus		R. E. $\frac{20}{xx}$ L. E. $\frac{20}{xxx}$	Intra - Nasal treatment		
Bruns	M	32	Left Side	Left Side Fronto-Nasal Duct obstructed	Edema of lids and Conjunctiva	R. E. $\frac{20}{xx}$ L. E. $\frac{20}{xl}$			
Bruns	M	40	Left Side Marked Supra-orbital	Left Side Enlarged Mid. Tube	Edema of lids Exophthalmos fistula through upper lid	R. E. $\frac{20}{xx}$ L. E. $\frac{20}{xxx} ?$	External operation	L. E. $\frac{20}{xx}$ R. E. $\frac{20}{xx}$	
Salter	M	45	R. Supra-orbital	Right Side Obstructed Sub-ac-frontal (Supp.)	Marked persistent conjunctival hyperemia some edema upper	Before treatment 20 O. U. $\frac{xx}{xxx}$	Intra - Nasal adrenalin	Same	Marked relief followed quickly. Intra-nasal treatment
Salter	F	19	O. U. Supra-orbital Worst on R. S.	Both Double Ch. fronto-Ethm.	Nothing external ophthalmic ex. (Dr. Salter) Disc red, contraction and tortuosities of retinal vessels	R. E. $\frac{2}{cc}$ L. E. $\frac{20}{xxx}$	Double ext. frontal Sinus op.	R. E. no impr. L. E. with $\frac{-1-050}{20}$ $\frac{xx}{xx}$	H. S. suffered many years with her eyes and nasal catarrh
Salter	F	28	Supra-orbital Neuralgia R. S.	R. Frontal Sinus Enlarged Mid. Turb. Obstruction	Nothing external, choroiditis vitreous opacities	L. E. $\frac{20}{xx}$ R. E. $\frac{4}{cc}$	Mid. turbinectomy and irrigation (intra-nasal)	L. E. $\frac{20}{xx}$ R. E. No improvement	For some years as then opiated Permanent nasal discharge recurrent in character.

We must therefore consider the question from a new viewpoint, namely, chronic fronto-ethmoidal sinusitis. The proximity of the frontal and ethmoid sinuses to the orbit furnishes several pathways which the inflammatory process may follow in its extension to the orbital cavity. Congenital fissures in the bony walls separating these contiguous cavities, namely, the floor of the frontal sinus and the os planum of the ethmoid cells. The blood vessels and lymph channels are just so many avenues through which infection may occur—osteophlebitis, periostitis and bone necrosis are contributing factors.

When it is remembered that the greater part of the venous supply of the frontal and ethmoid sinuses is carried away by the ophthalmic vein, we have in this alone an anatomical explanation of the passive orbital hyperemia which might sometimes occur as a result of actual obstruction in the anastomotic circulation between the orbit and these two sinuses. We have scarcely made any further advance in our attempts to explain the phenomena themselves. That some of the phenomena about the eye are due to a pure reflex action transmitted through the fifth nerve to the sympathetic distribution in the orbit is apparently supported by clinical evidence.

Overdistension of the sinus walls with pus, with a consequent irritation of the fifth nerve terminals in the sinus walls, is a possible factor. The question which has more than academic interest, but which presents difficulties in the solution is which factor is at work in a particular case; just here is the rub.

One thing is certain and striking; that, considering the great number of fronto-ethmoidal sinusitis cases seen and treated; only a small percentage show eye affections. In thirty-five cases presenting this sinus disease seen by me in the last two years in private practice, only four showed actual involvement of the eye traceable to the sinus inflammation. Dr. Salter associated himself with me in the work; the ophthalmoscopic findings are his.

The explanation of this comparatively small percentage of eye involvements in frontal sinus disease must be that in addition to contiguity of parts and vascular connections with the other contributing factors already mentioned, some particular vascular or other anatomical variation is present in a particular

case which favors the development of the eye phenomena. It is well to emphasize the following divisions based on the clinical manifestations of the associated affections:

(1). We have sinusitis with external signs (such as edema of the lids, conjunctival hyperemia, exophthalmos, ptosis), without ophthalmoscopic signs. (2). Sinusitis without ophthalmoscopic signs, but with visual disturbances. (3). Sinusitis without external signs about the eye, but with disturbed vision and ophthalmoscopic signs, such as optic neuritis and choroidal changes.

The eye symptoms may overshadow all others so as to direct attention to it exclusively. On the other hand, the nasal discharge may be the first observed phenomenon, the eye condition being revealed only during the routine examination of the parts. The most constant eye symptom is asthenopia—pain in the eye. The ocular affections admit of the following grouping: (1), Changes in the orbital cavity; (2)', affection of the lids; (3), conjunctival hyperemia; (4), diseases of the uveal tract; (5), changes in the fundus.

The relation between the accessory cavities and the eye is still a large and unexplored field. The joint work of the ophthalmologist and rhinologist is the desideratum, and is absolutely necessary to clear up many obscure points. Ophthalmoscopic examinations and the state of the vision before and after treatment of the associated sinus affections are greatly needed in order to advance our knowledge along safe and conservative lines. Finally, by not overlooking the sinuses, many mistakes may be avoided.

DR. GORDON KING, of New Orleans, read a paper entitled

Concerning the Etiology of Frontal Sinusitis.

In studying the causal factors in the production of an inflammatory process affecting the accessory sinuses of the nose, we have but to bear in mind that the mural mucosa lining these cavities is after all only a continuation of that of the nose, and although differing somewhat in its anatomical structure and to a degree in its physiological function, it must obvi-

ously be more or less subject to the same morbid influences affecting that membrane.

We must consider, however, the greater protection afforded by the dense bony walls of these sinuses, their almost complete isolation from external sources of contamination and their narrow channels of communication with the nose to realize that the accessory cavities do not participate in every morbid process that occurs within that vulnerable mucous organ. Another serious barrier to extension of inflammation from the nose lies in a certain unexplainable power of resistance to infection with which the lining membrane of the sinuses seems to be endowed, which would largely account for the fact that they usually remain free from involvement while the nasal and the rest of the respiratory stretch of mucous membrane may be the seat of intense or prolonged inflammatory changes. That this resistance is overcome or lost through the virulence of the nasal infection or some general or local influence lowering the natural vitality of the tissues explains the occasional participation of an accessory cavity in affections of the nose.

The narrowness of the passages between the accessory sinuses and the nose is not only to be regarded as preventing extension of nasal inflammation, but, under certain conditions, of favoring it, since they easily become occluded and occlusion must lead to pathological changes incident to lack of necessary ventilation and drainage.

It is generally admitted that the sanitary state of these cavities depends upon a certain degree of air communication with the nasal chambers, and that most of the subjective symptoms we recognize clinically as indicating accessory sinusitis are attributable to partial or complete closure of these nasal outlets. Even when the sinus remains free from infection during or after the closing process the lining membrane is inevitably affected by the isolation, as may be observed in the peculiar affection known as mucocoele, in which the air contained in the cavity at the time of closure becomes absorbed by the tissues and is replaced by mucus or serum, the pressure from which may lead to extensive absorption of the bony walls.

As prime predisposing factors, therefore, in the development of a sinusitis we must mention first a constitutional ten-

dency on the part of certain individuals to catarrhal inflammations and infections of mucous membranes; and, second, anything that tends to narrow or occlude the natural channels of communication with the nasal chambers.

Of the constitutional predisposition we may say that, while heredity no doubt plays an important role in that the individual may be born with low-grade tissue vitality and weak powers of resistance, the condition is one to be accredited largely to unsanitary habits of life and a disregard of those simple hygienic laws that make for the preservation and strengthening of our inherent forces of cell protection.

This susceptibility to colds and catarrhal inflammations is found at all ages in persons addicted to sedentary habits of life inconsistent with the quantity or quality of the food they consume and the capacity of their excretory organs to eliminate the waste products of metabolism. Excessive and unseasonable clothing that tends to suppress the excretory function of the skin and to destroy its power of reaction to changes of temperature is often the fundamental cause of acute and chronic congestions of the mucous membranes—the basis, in other words, of catarrhal and suppurative inflammations so common to the respiratory mucosa. Undoubtedly, too, the inactivity or disease of the other organs of excretion, and of the heart, favors the development of stasic congestion and germ invasion of the mucous tract. The nasal mucosa, being the most vascular and most exposed of all the mucous membranes, is naturally more prone to be affected by these evil influences, and the accessory cavities, through their continuity of mucosa and propinquity, must necessarily share the dangers to some extent.

Among the local predisposing causes, septal deviations and outgrowths can be frequently observed as favoring sinus involvement by obstructing the normal nasal drainage, causing retention of secretion, diverting the respiratory current and narrowing the accessory cavity openings. These and other morbid irregularities, such as hyperplasia of the turbinate bodies, polypi and nasal neoplasms, have an unsanitary influence especially on the frontal sinus, the nasal communication of which, though well placed for natural drainage, is in the form of a tubular canal instead of a foramen, and hence more subject to stricture and occlusion.

As it is to be conceded that the vast majority of frontal sinus infections occur as extension from the primary nose disease, let us consider what special forms of nasal inflammations are most prone to involve the less vulnerable mucosa of that cavity. From personal observation and study of these cases, I should say without hesitation that grippe is by far the most frequent offender, so much so that one is almost justified in considering frontal sinusitis complicating what appears to be a severe rhinitis as practically a confirmation of the grippal nature of the affection. This fact is to be accounted for by the general devitalizing effect of the disease, the depth and intensity of the local inflammation and its well-known tendency to invade and spread over mucous surfaces. In severe infections of this nature it is not uncommon to observe an invasion of all the accessory sinuses of the nose, and even the ear in one victim—proof sufficient of its spreading propensity.

That the influenza bacillus itself invades these cavities and propagates therein has been frequently proven by examination of the pus, even in long-standing cases, which was found to contain the bacteria in almost pure culture. Usually, however, the infection is a mixed one with staphylococci and other bacteria common to the nasal cavity.

Pneumococci have been frequently found, and in a case recorded by Luc, a medical student who had made a post-mortem examination of a case of pneumococcal meningitis, suffered an acute attack of fronto-maxillary sinusitis, and pus from these cavities showed a pure culture of pneumococci. Measles and diphtheria have been observed as the exciting cause of sinus infections, and once in my own experience I had the rare opportunity to attend an autopsy on a diphtheria case in which the frontal sinuses exhibited the characteristic false membrane.

In recent years much stress has been laid upon the importance of atrophic rhinitis as a cause of sinus infections, while, on the other hand, it is contended that the atrophic rhinitis is a result rather than a cause of the sinus suppuration. In my own experience I may say that I have seen comparatively few cases in which the diseases were associated. In conclusion we must mention the interesting theory advanced by Fraenkel, and which merits thoughtful consideration, that in-

flammatory processes in distant parts of the body may be the sources from which micro-organisms may reach the accessory sinuses through the medium of the blood, the lower vitality permitting the invasion of an otherwise resistant field.

Primary bone disease or traumatic inflammations of the frontal bone involving the sinus I do not consider as etiological factors of sufficient importance to merit more than passing mention in this brief essay.

DR. R. F. HARRELL, of Alexandria, read a paper entitled

Some Points in the Treatment of Empyema of the Frontal Sinus.

It is not my purpose to enter into a full discussion of the treatment of this very important malady, for the reason that the subject is entirely too extensive to endeavor to cover in a paper of this kind.

When we come to consider the nature of the mucous membranes of all the closed cavities that, once diverted by disease from the normal secretion of mucus to the secretion of pus, it is almost impossible to restore the normal function if the disease has existed as long as three or four months. With this fact in mind, with the additional fact that the frontal sinus is one of the most poorly drained cavities of all the accessory cavities, we have confronting us almost a purely surgical line of procedure.

With the extreme variations in the size, shape and general makeup of this cavity, having in many instances partition walls dividing the cavity into compartments, we have had presented in our literature almost innumerable variations of operative procedures for our consideration. But all are divided into two great classes, namely, internal (or intra-nasal) and external operations, the chief object of both being the establishment of the freest drainage possible and the destruction of as large amount of the secreting surface as possible. With this end in view, the external operations give promise of greater results than the internal, but the objection urged against the former is that they create deformity and in many

cases bring on undue dryness of the nasal cavity and throat. Those urged against the intra-nasal procedures are their want of efficiency and the dangers of operating blindly. Yet the latest studies in frontal sinus operations tend toward the intra-nasal methods. First comes the treatment of acute attacks by reducing the swelling around the frontal sinus canal by adrenalin and cocaine. Then the removal of the anterior end of the middle turbinate and irrigation. In chronic cases, first, the removal of the middle turbinate and irrigation. This failing, the intra-nasal operations are used, first among which I may mention the operation of Halle, of Berlin, who chisels away the floor through the nasal passage. Good has suggested that this be done by introducing his rasps through the duct and rasping the floor away. Ingalls advocates drilling the floor away by passing a hollow burr up over a pilot probe. Then he introduces a gold tube to be worn till the canal is healed. Other procedures have been advocated by other operators, but in all the intra-nasal operations there is a certain element of danger which causes us to hesitate, and which should be seriously considered in every case.

Douglass mentions five rules that make intra-nasal operations more or less dangerous. viz.:

First. The frontal sinus may be absent.

Second. The posterior wall of the roof of the sinus may be so near the naso-frontal duct as to render any operative procedure dangerous.

Third. Because all the time we have been irrigating or probing a large cavity we may not have reached the frontal sinus at all, but may have been probing and irrigating a large anterior ethmoid cell.

Fourth. Because of the decided tendency of a cutting instrument to be deflected slightly toward the median line when cutting around the orifice of the naso-frontal duct. This deflection of even a millimeter toward the median line will send the cutting instrument into the olfactory fissure and directly into the brain.

Fifth. Because of the variations in the location of the nasal opening of the naso-frontal duct.

Considering these facts, together with the large per cent of

cases that are not relieved by the intra-nasal operation, and, further, the fact that in a very large majority of frontal sinus cases we have had to deal with a large sinus, for it seems that these are more liable to infection than the small ones, the external operations have very strong claims upon us. Especially since the external operations are generally admitted to be more appropriate in cases with large sinus.

A number of operations of this class are worthy of our attention, namely: The operation of Jansen, the Luc-Ogden operation, the operation of Czerny, Kuhnt's operation and others, all have their place in the domain of surgery of the frontal sinus. But, taking into consideration all the advantages derived from the Killian operation, it stands to-day as the operation par excellence of all the external operations in that it affords the freest drainage and destroys more of the diseased membrane. In performing this operation Dr. Robert Fullerton, Glasgow, insists on the observance of the following:

Make incision from the outer margin of the unshaven brow to the inner margin of same. Make the bone bare by pushing back the periosteum and with the angular chisel make a smooth cut through the outer table in such a way as to give a straight, smooth upper boundary for bridge. Then remove anterior wall with rongeur forceps. This done, extend the incision down the side of the nose to expose the upper end of the lachrymal groove, raise periosteum to expose the whole surface from the upper boundary of lachrymal groove to the floor of the sinus, including the whole floor of the sinus. With very small trephine, go through the outer table at the upper extremity of the lachrymal groove, then with rongeur forceps remove the bony structures from this point upwards till the floor is reached, taking out the floor carefully to preserve the integrity of the arch. Through this opening the anterior ethmoid cells are all removed. In removing the floor of the sinus great care should be exercised to prevent injury to the eyeball, which may be accomplished by the use of the Killian eye protector. In closing the wound buried sutures are used to bring the deep structures well together, which assures the proper union of the attachment of the superior oblique muscle, the proper replacing of the lachrymal sac, the preven-

tion of diplopia, the thorough filling of the floor of the sinus with the orbital tissues and the least possible deformity of the face. Finally, the skin wound is closed by very fine bronzed wire sutures, placed very close together, which seems to exert an antiseptic effect and enhances the chance of union by first intention and minimizes the scar. Usually there is no after treatment necessary.

This operation is especially indicated where we have osteitis and an extension of the disease into the orbit. Also in old cases which have resisted other methods we may resort to the Killian operation with assurance of submitting our patient to little danger of life, with the best prospects of giving permanent relief from a very troublesome and annoying disease.

DISCUSSION.

DR. M. FEINGOLD, of New Orleans: In discussing these papers I would like to mention a case that occurred in the Charity Hospital. A negro was admitted to the hospital, claiming that he had been blind for the past three days. I saw him, examined his fundus, and found absolutely nothing; disk normal, fundus normal. He gave us the history that he had taken some chill tonic a few days before and had become blind afterwards. He remained in the hospital and we gave him iodids, going on the theory that possibly he had taken some wood alcohol by mistake. We also gave him strychnin. Three days afterwards he suddenly turned a maniac. The house surgeon, whom we had asked previously to examine the patient, found absolutely nothing to cause atrophy or, afterwards, to explain the mental symptoms. He remained in this condition for about forty-eight hours, and when I next called at the hospital I found the patient had died the day before. The student who made the autopsy told me that he had found an abscess of the brain in the frontal lobe, and as the cause of the abscess of the brain he found an empyema of the frontal sinus. I am sorry I did not see the autopsy. This is one of those very interesting cases in the class that Dr. Dupuy mentioned.

DR. H. D. BRUNS, of New Orleans: I would like to say one thing of the relation of eye troubles to frontal sinusitis and such affections. The physician at large has learned thoroughly

that headaches are very often due to eye defects, but he has not yet learned so thoroughly that headache is often due to trouble in one of the sinuses. And this is of some importance to a man's patient in this way: If he sends him to an oculist, who is going to make a thorough examination of the eyes under atropin, the only thorough examination, the patient is put through a long and tedious examination; whereas if he would send him first to the man doing nasal work, if there are any suspicions at all of sinus trouble, it would be far better than first sending the patient to the oculist. I constantly see cases that are sent to me for eye troubles, where it is perfectly patent that the trouble is in the sinuses. It seems to me it would be much better to eliminate these troubles first.

Clinical Note—Ethyl Chloride as a Local Anesthetic.

By HERMANN B. GESSNER, M. D., New Orleans.

The use of ethyl chloride by local application is in general disappointing. Only in the most superficial attacks on the tissues have I found it satisfactory. Thus in paronychia with a thin layer of integument enclosing the pus collection it has been used successfully even in sensitive patients.

It is my purpose in this brief communication to call attention to its value as a preliminary to infiltration anesthesia. The intradermic introduction of the hypodermic needle for the purpose of edematization or wheal-production is frequently complained of by patients. In some the infliction of this rather acute pain, especially after liberal promises that "It won't hurt a bit," prejudices the mind of the sufferer and makes the remainder of the work an uphill task for the operator. By the employment of the ethyl chloride spray and of the introduction of the needle just as its snow is thawing this first pain may be eliminated altogether or at the least much diminished.

In employing the subarachnoid or medullary form of anesthesia I use ethyl chloride in the course of what may seem to many a rather elaborate technique. But "there's a reason." To begin with, the ethyl chloride spray is employed to make painless the intradermic placing of the hypodermic needle be-

tween the fourth and fifth lumbar spines. A $\frac{1}{2}$ - $\frac{3}{4}$ -inch wheal is produced with No. 1 Schleich Solution ($\frac{1}{5}$ grain cocain hydrochlor., $\frac{1}{5}$ grain sod. chlorid., $\frac{1}{40}$ grain morph. sulp., dissolved in 100 M. distilled water). Through the wheal the same fluid is injected as deeply as the ordinary hypodermic needle will reach, usually $1\frac{1}{4}$ inches. Within the borders of this edematized area a median slit is made with a scalpel through the derm to the subcutaneous fascia. The spinal puncture needle may now be introduced (1) without appreciable pain even to an apprehensive patient, (2) without the likelihood of punching out a plug of skin, an occurrence which I have known to cause the repeated (not less than six times) reintroduction of the needle before the cerebro-spinal fluid was seen. In this procedure I contend that refinement of detail is ultimately time-saving and altogether free from added risk.

Orleans Parish Medical Society Proceedings.

President, DR. B. A. LEDBETTER.

Secretary, DR. C. P. HOLDERITH.

141st Elk Place, New Orleans.

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF JANUARY 24, 1910.

DISCUSSION OF DR. GESSNER'S PAPER.

DR. LAMOTHE: I would like to say a word about the toxicity of bismuth preparations. I have seen many bismuth preparations used in foreign countries, and I believe that lac-bismo will prove more serviceable, as the sub-carbonate is not as poisonous as the sub-nitrate. To substantiate the latter statement, I can relate a case of intestinal obstruction in which a chemically pure sub-nitrate was administered with poisonous results, but one week later the sub-carbonate was given the same patient with no deleterious effects.

DR. BRUNS: I should like to know if, considering the common presence of arsenic in bismuth preparations, any of his symp-

toms could be attributed to arsenic. The continual search for measures which may take the place of the knife is very proper. Philosophically the use of the knife is always a confession of weakness—ignorance. If we knew of any drug plan of treatment that could accomplish the same thing we would always use it in preference. As the surgeon, of all men, best knows the limitations and disadvantages of the knife, he should lead in the search for superior substitutes.

DR. WALET: The majority of sinuses and fistulæ are chronic, and this deals with a chronic condition, but nevertheless we are sometimes surprised with the good results of persistent and consistent treatment. As a rule, the older the wound the more careless we and our patient grow, and in these chronic conditions they would heal proportionately as rapidly as acute ones if we were to continue our surgery as faithfully and as aseptically. In empyema cases, just when to allow the wound to close is important to determine. The method of treatment advocated will, I think, meet special indications in selected cases.

DR. JOHN F. OECHSNER: While my experience in the use of Beck's paste has been limited, I have now several cases of hip-joint disease under observation, in which there are numerous sinuses. In these I am practicing the bismuth injections and will note results. The paper of Dr. Gessner is most thorough and his conclusions good, though I fear his ultra-conservative expression in his conclusions relative to the opposition which people generally display toward cutting operations might bear bad fruit. It might act as an excuse to the family or indifferent practitioner. We do know that sinuses due to a foreign body in the form of a bone spiculum, or what not, will never heal, no matter how many injections we use, until this foreign body be removed. Dr. Gessner mentioned this in his paper, but unless we dwell upon it we can readily see how simple it is for a man to decide to squirt bismuth paste where it is not indicated.

DR. GESSNER (in closing): I am very thankful for the very liberal discussion of my paper. Foreign bodies as a contra-indication to the paste are quite fully covered in my paper. This method is no cureall, but the results in many cases are good. I have used lac-bismo in one case of tuberculous knee in which sinuses remained after incision. I have found this:

preparation to be too dilute for therapeutic purposes. The indifferent practitioner will seize upon any excuse—if not this treatment, some other pretext—for putting off radical treatment. In ordering bismuth, one should specify “free from arsenic,” though bismuth to-day, I am told upon good authority, is quite free from arsenical impurities. As to the laity’s fear of operation, I may say that when my own children have undergone operations for adenoids and enlarged tonsils under general anesthesia, even the mild procedures have been a source of anxiety to me. How much more would it be the case with the laity, who naturally desire to be relieved of the strain of operative interference by bloodless means of cure, especially when highly efficacious!

MEETING OF FEBRUARY 14, 1910.

DISCUSSION OF DR. DUVAL’S PAPER.

DR. DABNEY: Work in pathology is out of my line. I have been very much interested in the question of diarrhea and dysentery since Shiga published his memorable researches. Many years ago, before anyone mentioned this fact, I was of the opinion that the cause of this type of disease was bacillary. I trust that the suggestion, as recommended in this able paper, especially the question of serum treatment, will be taken up seriously and given a most convincing trial.

DR. GURD: Dr. Duval has pointed out what is apparently the most crucial point in the etiology of these conditions; that is, the condition is one of auto-inoculation. We are beginning to think that auto-inoculation is of more importance than formerly and that certain organisms residing normally within the body are organisms either directly or indirectly, under certain conditions, capable of inducing pathologic changes in the human body. Other evidences of auto-inoculation are the common ones of infection with the pneumococcus in tonsilitis or pneumonia, the various lesions produced by the *B. Coli* and in a certain percentage of cases of puerperal fever. In this latter condition the predisposing factor in addition to the normal injury to the tissue during labor is frequently the gonococcus. Among other predisposing factors to development of dysentery in children,

benefits that accrue from sterilization and pasteurization of the milk supply are to a large extent the result of the lowering of the evidence of *tabes mesenterica* and allied conditions.

DR. DOCK: In connection with this most interesting paper, a question of practical importance is recalled to my mind of a practice in certain German hospitals of a double set of nurses to limit the spread and decrease the contagion of infantile diarrhea. The method in vogue in these hospitals is to have two sets of nurses, known as "upper" and "under" nurses, one tending to the mouth and the other to the anal regions of the patient. Of course, one can readily appreciate the wisdom of this method in dealing with this condition in children. This double set of nurses has been productive of good results in that the infantile diarrhea of these institutions has shown a remarkable decrease as compared with former statistics.

REPORT OF CASES.

DRS. E. M. HUMMEL and C. W. DUVAL reported A CASE OF SYPHILITIC ENDARTERITIS OF THE BRAIN AND SPINAL CORD, exhibiting specimens.

The patient was a white man, aged 36, who was under observation more or less continually for 21 months. Death occurred Dec. 19, 1909, the immediate cause being inanition from paralysis of deglutition.

Patient had contracted syphilis in 1903 and treatment had been conducted only in a desultory way. A stroke of partial left hemiplegia had occurred November, 1907. Between the time of the initial lesion and the latter event there had been no manifestation of syphilis. At the time patient came under observation there were signs of a previous hemiplegic stroke producing emotional instability and confusion. At this time he could not tolerate specific treatment. After getting somewhat worse during several weeks, he finally bore specific treatment and improved greatly. Was under observation from June to October, 1908. During this time his chief symptoms disappeared and he was able to be around and about his usual activities.

When he again came under observation, August, 1909, the first condition had recurred. These symptoms progressed

steadily, with the addition of signs of hemiplegic lesions in the left brain, until time of death.

The pathological specimens exhibited were sections through the optic thalamus and the internal capsule, as well as transverse sections of the cord. The chief lesions were foci of softening in the two thalami; that on the right almost totally destroyed the thalamus and destroyed a great portion of the fibers of the capsule; that on the left was less extensive, but similar in location. The left half of the spinal cord was seen in an atrophied condition from secondary changes. Numerous other small foci of softening were seen about the cortex and the pallidum.

The full text of this paper will be published elsewhere, with photographs of specimens. As yet the diagnosis as to the specificity of the lesions has not been confirmed microscopically, but spirochetæ will be searched for.

DISCUSSION.

DR. DUVAL: In justice to Dr. Hummel, I wish to say that this is really his paper, for all I did was to examine microscopically the stained sections to determine histologically whether the tissues presented the picture of syphilis. I need not remind you that in the absence of finding the *treponema pallida* that it is impossible to diagnose any lesion as syphilitic except in the case of a gumma, and even here it is extremely difficult at times. The microscopic sections from this case show areas of extensive degeneration in the optic thalamus which are not incapsulated and do not present the zonal arrangement of fibrous tissue and leucocytes so common to gumma. The cortical vessels are filled with numerous miliary aneurisms, and in places are partially plugged with both recent and old thrombi. The history of this case is so plainly one of syphilis that even the failure to demonstrate spirochetes would be of no great moment. However, I believe that the organisms will be found in the sections that are now being prepared by Leviditti's method, because the history of the case indicates such recent infection that the lesions can hardly be regarded as tertiary in character.

DR. DABNEY: I would like to ask Drs. Hummel and Duval to

what they attributed the marked improvement during certain periods of this case, in view of the fact that they claim that the specific treatment was not well borne. Most men use K. I.; so do I, and in addition thereto it has been my practice to use half a grain of bichloride of mercury subcutaneously every third day. This recalls to my mind a case which I not so long ago had under treatment. There was a remarkable resemblance of symptoms, as noted in this case, which was presented over night. Under the treatment, as mentioned a little while ago, I obtained fairly good results; in fact, there was an increase of strength in both arms and the general activity was considerably improved. In these nervous cases I am afraid that we abandon hope too early. It is in this type of cases that treatment should be by inunction or needle. Our course of treatment should be heroic and persistent.

Dr. Hummel (in closing): In reference to the question asked by Dr. Dabney as to the explanation of improvement noticed in the case while under observation, I beg to state that in a specific lesion of the central nervous system, either softening from the blocking of a vessel or hemorrhage, there is considerable inflammatory reaction. Under the influence of treatment, or even after a lapse of time without treatment, the inflammatory accompaniment subsides and the exudate thrown out by the process is later absorbed. The final result is determined by the amount of complete destruction of the nerve elements incident to the lesion in question.

OBITUARY NOTE.—As we go to press we learn of the accident causing the death of our esteemed collaborator, Dr. Gordon King.

We shall further notice the sad event in our next issue.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Leprosy A National Question.

One swallow does not make the springtime, but it signifies something. The now famous Early case in Washington, still discussed by the daily newspapers, offers a glaring example of what the government has not done for the leprosy question in the United States. In Hawaii, the Philippines, Porto Rico, and even in Guam, a paternal government has appropriated a total of some half a million dollars to provide for the investigation and care of persons afflicted with this disease.

There are more lepers in the United States to-day than in Guam or in Porto Rico, and probably as many as there are in the Sandwich Islands—yet every effort so far made to excite governmental interest in this question in the United States has failed. The systematic investigation of the presence of the disease was rather indifferently undertaken a few years ago by the Public Health and Marine Hospital Service and stopped with a report to Congress. Yet every now and then one of the States in the Union has a spasm of proposed action when a case of leprosy happens to come into the limelight. Most of the United States have already experienced one or more cases, and the disease is fulfilling its proverbial and historic habit of insidious increase. New York, Boston, Chicago, San Francisco, St. Louis and other cities of importance have noted cases from time to time, and these have grown frequent enough to have excited some medical and sanitary interest of late.

Texas has awakened to the existence of some sixteen to twenty known cases within its borders and legislative action has been taken, but not yet promulgated, owing to the lack of sanitary intelligence on the part of the governor of the State, who saw fit to indulge his veto privilege.

Louisiana has three separate times since 1776 established

segregation of lepers—each time with an apparent effect on the disease.

Boston has a leper colony, and California segregates all lepers found. Iowa, Oregon and Minnesota have ample laws covering the question of leprosy, and the Federal Government has quarantine laws, which are not observed—if medical reports of imported cases can be relied upon.

There are many questions just now interesting the national Congress, and with the problems of the State and of the Interior Departments questions of public health must naturally seem subsidiary, but the fact remains that the time is at hand for some action in the matter under discussion.

Five thousand lepers are in asylums in the Philippines. Intercourse with these islands is constant. The South American republics are full of leprosy, and every day a freer communication exists. In some of these countries the governments have exercised precautionary measures, but too many instances of lepers coming unchallenged into the United States prove that neither the laws at home nor those at our own border are fulfilled.

It is no answer to a demand for a national asylum for lepers, where the disease may be investigated and cared for, that the government is studying this problem in the colonies. A proper institution in a proper locality, with adequate facilities for the care of the disease, would have prevented the horrors of Early's experiences and would have prevented the crime of the abuse and final death of the Syrian who in 1907 was shuffled back and forth over the boundaries of Maryland and West Virginia.

The recent conference on leprosy held at Bergen, Norway, reaffirmed the belief in the contagiousness of leprosy and again urged the action of civilized nations in the segregation of its victims as a protective measure.

There is no necessity for any great alarm at the possibility of an enormous increase in leprosy, as is the case with tuberculosis, but the horrors of the disease in its manifestations and in its usual course and outcome have not diminished since Moses' time, and certainly the United States Government cannot assume the attitude of enlightenment which is inferior to that which prevailed five thousand years before the Christian era.

The Future of Medical Education.

It is interesting to review the statistics derived from the published reports of the universities which keep records of their alumni and their fields of labor after graduating. This is especially so with that group of college graduates who follow medicine.

In the years gone by the percentage of college graduates engaging in the study of medicine was fairly small compared with those who took the law or the scientific pursuits of engineering and other practical fields.

With raised standards for entrance in medical colleges, the classes of graduates hereafter must be far better educated than the physicians graduated a few years ago, who, in most medical colleges in this country, needed only the application and the money to make for his degree.

The *summum* has been uttered recently at the Chicago meeting of the Council on Medical Education of the American Medical Association by at least two speakers before that body; they are Dr. Pritchett, of the Carnegie Foundation, and President Schurman, of Cornell University. Dr. Pritchett arraigned the large number of medical schools which still pretended to a modern medical curriculum with no equipment beyond the experience of their professors and the desire of young men to graduate with the least effort and requirements. His deductions are anticipatory, for it is only too true that even honest educators of years of experience have not yet realized the scope of medical progress and its near future, not to mention its remote possibilities.

The scathing commentary of the President of Cornell may have been deserved, but we must be slow to rebuke when men are honest in their endeavors.

With the exception of two medical colleges in the country, radical changes in the admission requirements have been made only within the past few years, and even with Cornell the change has not grown old enough to be appreciated.

The multiplication of doctors in the years gone by was readily understood, and the fact that natural conditions would gradually protect the public against a further increase can be as readily understood, as both relate to the basis of the economic law of supply and demand. The pendulum, however,

must be adjusted, and the radical revision of methods of medical education may be effective, but they are not necessarily either logical or equitable. There is such a thing as overreaching the purpose of an action.

The medical student of the future under the most radical provisions contemplated by some institutions must be rich enough to take his doctor's degree leisurely, or earnest and inspired enough to work out this vocation for a period of his life, which must be looked on as a sacrifice to the profession of his choice.

But we are not willing to believe that the entire concourse of the best medical colleges in this country will overlook the fact that, above all, the best doctor is the one who is best trained, and that the time spent in academic preparation may not always gauge the genius of the individual student—often times coming from the ploughshare to the scalpel.

Abstracts, Extracts and Miscellany.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

THE USE OF PYOCYANASE IN DIPHTHERIA.—Mühsam states that, *in vitro*, pyocyanase inhibits the growth of *B. diphtheriæ*, and, in comparatively small doses, kills large quantities of these bacilli. In actual treatment of the disease with this substance, the throat of the patient is sprayed three times a day, at first more frequently, with 2 c. c. of pyocyanase warmed to 50°. It appears to bring about the disappearance of the membrane, and favorably to promote the general condition of the patient. The fetor from the mouth is quickly stopped. Pyocyanase should only be used in conjunction with the anti-toxin treatment. The clinical experiences already demand further investigation in the matter.—*Deutsch. Med. Wochenschr.*

J. A. S.

NITROGENOUS HYPERALIMENTATION.—L. Zala says that it is not difficult to define hyperalimination and hypoalimination when they are extreme; when, however, we have nearly reached their confines it is difficult to tell when sufficiency ends and repletion begins with regard to nitrogenous substances.

It is possible to maintain a comparative well-being on not more than one-half the amount prescribed by Voit—that is, with about fifty grams. If the organism introduces more than enough nitrogen to repair the cellular loss of daily life the excess of nitrogen is deposited under the form of proteid substance. A large part is rapidly re-eliminated by the liver and kidneys, giving them excessive work. Uric acid is the principal product.

When the body must repair the ordinary wear of life, or that of disease, or has to grow, a relative hyperalimination with nitrogen is useful and necessary. It is not necessary, and is even harmful, in the healthy adult, because, without being of any use to him, it exposes him to immediate and remote dangers. Superalimentation with meats in tuberculosis is not a simple therapeutic measure, and should be superintended and watched over with the greatest care.—*La Reforma Medica.* J. A. S.

THE STATISTICS OF THE TREATMENT OF SCARLATINA BY SERUM.—Pulawski gives an account of his experiences in the use of serum, obtained from Professor Bujwid's laboratory in Cracow. Cases treated by this serum showed a mortality of 28 per cent., as opposed to a mortality of 71 per cent. in those treated by ordinary methods. (The figures are startling. They suggest either that the type of disease must have been peculiarly malignant, or that only this particular class of the disease is referred to.) The serum is quite harmless, has an immediately favorable effect even in moribund cases, and appears able to prevent concomitant diseases and sequelæ, such as otitis, lymphadenitis, nephritis, etc.—*The Practitioner* and *Deutsch Med. Wochenschr.* J. A. S.

REPUTED CURE FOR THE OPIUM HABIT.—A new remedy for the opium habit is claiming the attention of the profession. The plant yielding it is the *Combretum sundaicum*, a woody climbing plant abundant on the plains in certain parts of Asia. The method of preparation and administration which appears to be invariably

adopted is as follows: The branches and leaves are the parts of the plant used. The latter are separated from the woody portions, which are cut into thin slices and short length. Leaves and stem are roasted separately on an iron plate over a charcoal fire and then mixed together, the reason for separating being that the leaves would be charred by the amount of heating necessary for the wood. A decoction is then prepared by boiling from 8 to 11 ounces of the roasted drug in four gallons of water for three hours in a loosely covered vessel, and straining, at first roughly and then through a white cloth. Each patient is supplied with two bottles of the decoction, usually holding about 25 ounces each. Into one he puts a quantity of burnt opium equal to the amount of his usual daily allowance, and none into the other. A dose of about $1\frac{1}{2}$ ounces is taken from the first bottle as many times a day as the patient has been in the habit of smoking, usually three or four times. Each time a dose is taken the bottle is filled up from the second until the latter is emptied, when the patient continues taking the mixture that remains, without further alteration of its composition. Thus the patient begins with a dose of opium of only about one-sixteenth, or a daily dose of from one-sixth to one-fourth of his usual daily amount, and, instead of smoking it, he takes an aqueous extract of the residue left after roasting it in the same way as for smoking. With each dose he takes a quantity of the decoction of combretum, and the amount of extract of opium progressively diminishes to the seventeenth dose, when it is approximately only one-third of that in the first dose. It then remains constant to the last, or thirty-second dose.

It is stated that in the majority of cases the cure is then effected. If it is not complete, the patient obtains a second supply of the medicine, into which is put only half the amount of burnt opium that was added to the first. As, however, the dose has been already reduced to one-third, it appears an irrational proceeding to increase it again to a half prior to further reduction. In some cases a third bottle is necessary.

When once the point is reached at which the patient can do without opium, further use of the combretum is not considered to be necessary. The "cure" is thus not a mere substitution of one drug habit for another.—*British Medical Journal—Medical Record.*

Department of Nervous and Mental Diseases.

In Charge of Drs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

SURGICAL TREATMENT OF TRIFACIAL NEURALGIA, INCLUDING A SERIES OF 23 INTRACRANIAL AND 15 EXTRACRANIAL OPERATIONS, WITH ONE DEATH. C. C. Frazier, Philadelphia. *University of Penn Med. Bull.*, Philadelphia, April 1909.)

Frazier says that, according as we are dealing with a minor or a major neuralgia, a peripheral or central operation will be called for. The technic of these has been well nigh perfected; the physician should no longer harbor the traditional dread and fear of operation on the Gasserian ganglion. Too often, the operation is put off until the patient is addicted to the morphin habit, depleted in strength and vitality by drugs, sleepless nights and years of intense suffering. The Gasserian ganglion is easily exposed, hemorrhage and shock need no longer be considered elements of danger; death from shock or from hemorrhage does not occur in experienced hands; the risks of operation are only those associated with any other major procedure. Recovery from the effects of the operation is rapid; the patients are frequently up and about on the third or fourth day, and the ultimate results are, to say the least, most gratifying to both patient and operator. Frazier knows of no other surgical procedure which, from every point of view, offers a greater and more permanent measure of relief. He describes the operation in detail.

VAN W.

CASES OF SACRAL TABES WITH NECROPSY. (S. Leopold, Philadelphia. *Journ. of Nerv. and Ment. Diseases.*

Leopold reports a case of tabes in which the Achilles tendon reflex was absent on both sides and in which there was no Babinski reflex or ankle clonus. The patellar reflex was obtained on each side very promptly, especially in view of the marked wasting of the thigh muscles. The pathologic findings show that the degeneration of the posterior root zone was pronounced through all the sacral segments, and extended as high as the fourth lumbar segment. It was slight at the third lumbar segment, and in the middle thoracic and lower cervical segments only the columns of Goll were involved. The degeneration was throughout more pronounced

on the right side, and involved the posterior root zone from the fourth lumbar down to the right, whereas on the left side, in the corresponding area, many normal root fibres entered the posterior horns. In this case, preservation of the patellar tendon reflexes and the disappearance of the Achilles tendon reflexes are satisfactorily explained by the pathologic finding. Ordinarily in tabes, the lumbar segments are innvolved and the typical symptoms arise, including loss of patellar reflexes. In this case, the sacral segments showed pronounced degeneration, the lower segments were involved, but the pathway for the reflex had not been destroyed. The slight involvement of a few of the fibres of the reflex collaterals of the right side corresponds to the finding of a slight diminution of the right patellar reflex.

VAN W.

SYPHILIS OF THE NERVOUS SYSTEM. (*Verschiedene klinische Erscheinungsformen von Lues des Zerebrospinal systems*. Engelen, *Deut. Med. Wochenschrift*, April 22, 1909, xxxv, No. 16.)

Engelen describes some typical cases, which throw light on the etiology of certain puzzling disturbances in the cerebrospinal system. In the first, the syndrome simulated amyotrophic lateral sclerosis, except that it had been in a stationary stage for twelve years and that there had been pains in the legs at first. There were apparently no syphilitic antecedents, but the ophthalmologic findings confirmed his assumption of a possible syphilitic origin previously unsuspected. The patient had wasted a fortune in seeking help from quacks, when early appropriate specific treatment would probably have effected a cure years before. In a second case, the symptoms of a spinal cord trouble came twenty-five years after unsuspected syphilitic infection. The clinical picture was dominated by variable root and cord symptoms, pains in the back, neuralgic pains in the legs, and tenderness over the spine, tremor, bladder disturbances and variability of reflexes. In another similar case, the pupil reflex appeared and disappeared suddenly a number of times. The patients were both cured by specific treatment. In another case, the symptoms suggested diffuse basal meningitis plus spinal meningomyelitis, too advanced for relief in a woman of 65.

VAN W.

SOME OF THE EFFECTS OF EXCESSIVE SMOKING (From *Brit. Med. Journ.*: The effects of excessive smoking are so little

understood that scientific contributions to this question are always of interest. The number of substances found in tobacco smoke are many, but recent investigations seem to show that many of them are only found occasionally and that others may be ignored, and that nicotin is the sole effective poisonous constituent of tobacco smoke. The presence of nicotin in smoke was denied by Vohl and Eulenberg. Shortly afterwards, Heubel, Gautier, Thoms and Schmidt and Habermann showed that nicotin was present in the smoke. More recently Habermann and Ehrenfeld showed that under certain conditions, two-thirds of nicotin passed off in smoke. They claimed that pyridin is of little moment. Lehmann obtained considerable quantities of nicotin from cigar and cigarette smoke. Fleig and De Visme showed the characteristic rise of blood pressure that occurred with the injection of products of cigarette smoke into animals. Ratner showed that, in healthy non-smokers, nicotin produced no circulatory disturbances, and concluded that nicotin was the cause of these disturbances in smokers.

The symptoms produced by excessive smoking can be divided into two states: The first group, in which there are no recognized organic changes, and the second group, where organic changes are in progress. The symptoms due to the use of tobacco occur most frequently in patients of from forty to fifty years of age. Many of the early symptoms are met with at an age considerably below forty. Experience shows that the simultaneous use of alcohol increases the injurious effects of tobacco.

The first group, in which there are no indications of organic disease, comprise those cases mostly met with. The symptoms are usually attributed to indigestion, which gives rise to flatulency and causes palpitation of the heart. He complains that the palpitation awakened him in the middle of the night and that he felt restless and uncomfortable.

He is unable to go to sleep again until the heart has quieted down. A sinking sensation in the cardiac region is often complained of. The most convincing diagnostic sign is the presence of scotoma for red and green. This lies horizontally between the macula and the blind spot and more toward the temporal than the nasal half of the field. Green vision is the first to be affected and the last to return.

Later stages: The second group of changes, in which organic changes are in progress, has recently attracted much attention. Huehard, in 1889, declared that tobacco could produce arteriosclerosis, myocarditis, angina pectoris. Erbe thought that intermittent limping was the result of an arteriosclerosis which could be brought on by excessive smoking; he showed that twenty-five out of thirty-eight cases were excessive smokers. Klemperer reported two cases which he considered the result of the excessive use of tobacco. Muskat places tobacco among the causes of arteriosclerosis. Prolonged, excessive smoking may lead to sudden painless attacks of cardiac failure, which may prove fatal. Against the argument that many excessive smokers live to good old ages, one must remember that individuality and heredity play an important part. Klemperer asked the question—Do many habitual drunkards live to an advanced age?

It is, however, obvious that, if smoking is to be indulged in without injury, it can be only within certain limits, which must be ascertained for each individual. The determination of the border line causes the difficulty. The habit of excessive smoking is more insidious than is that of excessive drinking, as no one is likely to call attention to the dangers.

VAN W.

Department of Ear, Nose and Throat.

In Charge of A. W. DEROALDES, M. D., and GORDON KING, M. D., New Orleans.

CHLORETONE AS A LOCAL SEDATIVE TO THE RESPIRATORY TRACT.
—Willis S. Anderson, of Detroit, has found this drug most effective as a sedative and anesthetic when applied to the mucous membrane of the respiratory tract.

Being soluble in oil or alcohol, it can be applied as a spray or solution in a 2% or 5%, and being also extremely volatile, it can be vaporized by heat and the vapor injected into the nose and throat, where it becomes deposited on the surface of the mucous membrane as a fine crystalline powder. The author has devised a special glass tube for its application in this form

and finds it especially soothing in the dysphagia of tuberculous laryngitis and other painful nose and throat conditions.

It has a strong germicidal action and displays few if any disagreeable effects.

—*Laryngoscope*.

INTESTINAL AUTOINTOXICATION AS A FACTOR IN THE CAUSATION OF PATHOLOGIC CONDITIONS OF THE EAR, NOSE AND THROAT.—J. A. Stucky, of Lexington, in a paper before the American Laryngological, Rhinological and Otological Society, gave his views on this important subject and brought out a most interesting and instructive discussion.

The results and treatment of intestinal autointoxication are matters of common knowledge to the well-informed general practitioner and should be to the specialist. Imperfect and overnutrition and defective elimination are responsible for many functional and organic disturbances in the special organs and their mucosa, and local treatment in such conditions is merely palliative, even if at all effective.

The presence of Indican in the urine is found in considerable quantity as an indication of the autointoxication, and it is therefore of paramount importance, especially in chronic affections of the ear, nose and throat that an analysis of the urine should be made and the condition of the alimentary tract investigated. Proper regulation of the diet and the functions of the eliminative organs is all that is required to give relief in some cases when local treatment proves unavailing.

This subject is one that should engage the serious attention of every practitioner in this branch of medicine, too many of whom are, unfortunately, prone to overlook the fact that often what we consider a local disease of these organs is merely a local manifestation of a general disorder.

Miscellaneous.

ON THE FREQUENT ABSENCE OF PERMANENT CONTRACTURE IN INFANTILE HEMIPLEGIA. (E. Long, *Revue Neurologique*, 1910, Jan. 1).—The earliest writers did not regard contracture as a constant feature of infantile hemiplegia. Long presents several cases

in which it is absent, thus showing the error of the classic doctrine, which has been largely derived from the study of the hemiplegia of adults. This over-absolute opinion has partly arisen because the disease has been chiefly studied in asylums where only the graver cases are sent. The form without contracture is believed by Long to be not less frequent when one considers also the cases in private and in hospitals.

The chief feature of the infantile form is dysmetria, which is an essential rather than an epiphenomenon. It is the contracture which is an added phenomenon; for it is not always demonstrable even on movement, and it is not a function of synkinesis, nor in proportion to the increase of reflexes. Facts are still insufficient to explain post-hemiplegic contractures. One of Long's cases shows that their absence is not due to muscular atrophy, and another case shows that they are not proportional to athetosis.

TOM A. WILLIAMS.

Medical News Items.

A CORRECTION.—In the January number of the JOURNAL, under the caption of "Book Reviews," in the second and the last paragraph, the name of Dr. Lewis occurs in place of Dr. Dawson's name in the review on "*The Causation of Sex*." The JOURNAL regrets this inadvertent error.

NEW JOURNAL.—It is proposed to inaugurate a new journal devoted solely to physiologic therapeutics. This journal is to be published bi-monthly under the management of Dr. Henry H. Harrower, under the title of the *American Journal of Physiologic Therapeutics*, and is to be published in Chicago.

COUNCIL OF MEDICAL EDUCATION.—This body held a most successful meeting on February 28, March 1 and 2, at the Congress Hotel in Chicago, with a large representation from various institutions of medical instruction and from State bodies. Considerable attention was directed to the needs of revision in State medical boards, particularly regarding a common standard. Notable addresses were delivered by Dr. Pritchett, of the Carnegie Founda-

tion, and Dr. Schurman, President of Cornell University. The Chairman of the Council, Dr. A. D. Bevan, of Chicago, emphasized the large number of schools in the country which were below the minimum standards of the Council, and urged a renovation of the requirements and equipment of such schools.

MCGILL UNIVERSITY REUNION.—The Medical Faculty of McGill University, in Montreal, has announced an annual reunion for Monday and Tuesday, June 6 and 7.

JUBILEE OF M. GELLÉ, SR.—The scholars and friends of M. Gellé, Sr., through a committee composed of eminent Paris physicians, will present him, on the occasion of his jubilee, a medal in testimony of their admiration and in acknowledgment of his long and fruitful labors. Subscriptions for this purpose may be addressed to M. P. Masson, Editeur, 120 Boulevard St. Germain, Paris. To all subscribers of at least \$3 will be given a fac-simile of the medal which will be presented to M. Gellé.

HOTEL DIEU GRADUATES FOUR TRAINED NURSES.—The four young ladies who received their diplomas were the Misses Helen and Mabel Hardy and Miss Estelle Grillet, of New Orleans, and Miss Kittie Mosson, of Holly Springs, Miss. The graduation exercises were unostentatious, Dr. Ernest S. Lewis presenting the diplomas and making a short address appropriate to the occasion. The class of 1910 constituted the eleventh graduation class.

LOUISIANA BOARD OF MEDICAL EXAMINERS.—The Louisiana State Board of Medical Examiners will meet in New Orleans, May 19-22.

FOURTH INTERNATIONAL CONGRESS FOR THE CARE OF THE INSANE.—There will convene in Berlin, from Oct. 3 to Oct. 7, 1910, in the House of Delegates (*Hause der Abgeordneten*), the Fourth International Congress for the Care of the Insane. The meeting has been arranged for by the German Society of Psychiatry.

STATE MEDICAL ASSOCIATIONS.—On April 12 to April 14, 1910, the Mississippi State Medical Association will meet in Oxford. The Alabama Medical Association will meet in Mobile from April 19 to April 22. The Georgia Medical Association will meet in Athens, April 20-23, 1910.

CONVENTION FOR THE REVISION OF THE PHARMACOPEIA OF THE UNITED STATES OF AMERICA.—The Ninth Decennial Convention for the Revision of the Pharmacopeia of the United States of America will be held in Washington, D. C., May 10.

THE ASSOCIATION OF MEDICAL COLLEGES.—The twentieth annual session of the Association of American Medical Colleges was held in the hall of the Medical and Chirurgical Faculty of Maryland, in Baltimore, March 21-22, 1910.

LAFAYETTE BRANCH OF THE LOUISIANA ANTI-TUBERCULOSIS LEAGUE.—Dr. E. L. McGehee, State organizer of the Louisiana Anti-Tuberculosis League, of New Orleans, organized a branch society at Lafayette on March 14, 1910. The officers elected were as follows: Dr. L. O. Clark, President; Dr. G. A. Martin, Vice-President; Representative F. V. Moulton, Secretary-Treasurer.

AMALGAMATION OF MEDICAL SCHOOLS IN RICHMOND.—At a special meeting of the Faculty of the Medical College of Virginia, held Jan. 8, 1910, a proposition was made by Dr. Stuart McGuire, President of the University College of Medicine, that the two institutions unite, and the proposition was accepted. It is understood that the entire faculties of both colleges will resign and new ones be appointed by a joint committee. No time has been set for the change, as the action of the faculties must be ratified by the Board of Trustees. The action was precipitated by the recent burning of the buildings of the University College of Medicine.

RAILWAY SURGEONS' ASSOCIATION.—On Wednesday, Feb. 23, the surgeons of the Louisiana Railway and Navigation Company met in the Grunewald Hotel and organized the Louisiana Railway Surgeons' Association, with the following officers: President, Dr. Hermann B. Gessner, New Orleans; First Vice-President, Dr. Charles McVea, Baton Rouge; Second Vice-President, Dr. Daniel W. Kelly, Winnfield; Secretary and Treasurer, Dr. Frederick Ratzburg, Shreveport.

VACANCIES AT THE EYE, EAR, NOSE AND THROAT HOSPITAL.—It is announced that there are two vacancies in the medical staff of this hospital. The resident surgeons are assigned in turn to the Eye and to the Ear, Nose and Throat Department. In addition to the large and varied experience of great value which they can

accumulate during their term of service, they are furnished comfortable quarters and the equivalent of board. Any physician desiring to specialize in the branches named, and willing to profit by the advantages offered, should apply in person or by writing to the chief surgeon of the hospital, Dr. A. W. DeRoaldes.

TRAINING SCHOOL PLAN BY PRESBYTERIAN HOSPITAL.—The plan of the Board of Managers of the Presbyterian Hospital of New Orleans to make a training school for nurses a part of their institution has been finally adopted by that organization, and necessary provisions for changing the charter of that institution have been made.

CINCINNATI LANCET-CLINIC.—The *Cincinnati Lancet-Clinic* celebrated its one hundred and third volume by appearing in a larger form. It now corresponds with the other medical weeklies of this country.

THE FRANKLIN PARISH MEDICAL SOCIETY met in called session February 1, 1910, and elected the following officers: Dr. H. B. Womble, President; Dr. C. L. Guice, Vice-President; Dr. L. F. Robinson, Secretary-Treasurer. Dr. C. M. Jarrell, of Crowville, was elected to membership. The next regular meeting of the Society will be held April 12, 1910.

THE TWENTIETH ANNUAL REUNION of the United Confederate Veterans will be held in Mobile, Ala., April 26, 27 and 28, 1910. At the same time and place will also convene the thirteenth annual meeting of the Association of Medical Officers of the Army and Navy of the Confederacy.

PERSONALS.—Prof. J. A. Crisler has resigned from the Chair of Anatomy in the College of Physicians and Surgeons of the Memphis University, to accept the Chair of Clinical Surgery in the Memphis Hospital Medical College.

Dr. G. A. Danna, Chief Surgeon of the Charity Hospital, was tendered a dinner in his honor by the Italian colony of this city. Dr. Danna was presented with a handsome oil painting of himself.

Dr. Luther Sexton has been elected First Vice-President of the I. C. R. R. Surgeons.

Dr. John B. Murphy, of Chicago, was in the city during the past

month and lectured at the Charity Hospital on "Surgery of the Joints."

Dr. H. G. Perry, of Greensboro, Ala., is touring that State, making observations and investigations as to the prevalence of hook worm disease.

W. B. Saunders Company have just issued a new edition of their handsome illustrated catalog. It will be sent on request by addressing W. B. Saunders Company, Philadelphia, Pa.

The Great Northern Railway has donated a site for the St. Tammany Cottage Home for Tuberculosis.

The fifteenth annual dinner of the Mt. Sinai Alumni Association served to celebrate Dr. Abraham Jacobi's fifteen years of continuous service at the hospital.

REMOVALS.—Dr. J. B. Godfrey, from Olla, La., to Welsh; Dr. A. R. Sweeney, from Lake Arthur, La., to Carmen, Okla.; Dr. H. W. Jarrell, from Homer, La., to Mansfield; Dr. J. M. Ehlert, from Dutchtown, La., to Fowler, Cal.; Dr. P. L. Tipton, from Carruthersville, Mo., to Blytheville, Ark.; Dr. N. C. Elliott, from Monterey, Mexico, to Victoria, Tamps; Dr. J. C. Calhoun, from Mansfield, La., to Girard; Dr. S. T. Pulliam, from Crowley, La., to Houston, Texas; Dr. J. J. Gill, from Tremont, La., to Dodson; Dr. R. T. Perkins, from Morgan City, La., to 4923 Camp street, New Orleans; Dr. T. F. Wickliff, from Hayes, La., to Nairn; Dr. V. H. Caine, from Demopolis, Ala., to Nadawah.

MARRIED.—On Feb. 22, 1910, at New Hebron, Miss., Dr. S. E. Izard and Miss May Drummond, of Old Hebron.

DIED.—On March 19, 1910, at New Roads, La., Dr. E. H. Smith, a physician of Batchelor, La.

On Feb. 23, 1910, at Meridian, Miss., Dr. M. V. B. Miller. Dr. Miller had practiced in Meridian for over twenty-five years.

On March 5, 1910, at Biloxi, Miss., Dr. Jules Lazard, formerly of New Orleans. Dr. Jules Lazard was a prominent young physician of this city and had attained a high place in the profession. He had been treasurer both of the Orleans Parish Medical and of the Louisiana State Medical Society, and was highly esteemed.

TULANE NOTES.

THE TEXAS-TULANE MEDICAL ALUMNI ASSOCIATION announces a grand reunion at the Dallas meeting of the Texas State Medical Association, May 10 to 12. Dr. James A. Hill, Temple Building, Houston, Texas, is the Secretary of the Association, and invites co-operation of all Texas Alumni.

THE TULANE ALUMNI AT THE A. M. A.—All graduates of the Tulane Medical Department are urged to notify Dr. H. J. Scherck, at the Century Building, St. Louis, of their intention to attend the meeting. Dr. Scherck is chairman of the Tulane Committee in St. Louis, and expresses his willingness to secure hotel accommodations and to make any other arrangements for college-mates who may be in St. Louis during the meeting. The success of the Chicago reunion encourages the belief that the St. Louis gathering will be great.

FOUNDERS' DAY.—The exercises in commemoration of the beneficences to Tulane were held at the Atheneum, in New Orleans, on Thursday, March 3, in the afternoon. Addresses were delivered by Mr. W. W. Finley, President of the Southern Railway; by Dr. E. B. Craighead, President of the University, and by Dr. Isadore Dyer, of the class of 1889, for the Medical Alumni. The occasion was distinguished by the conferring of a degree of LL.D. on Mr. W. W. Finley, the Honorable John Barrett, Chairman of the Bureau of American Republics; President Kilgo, of Trinity College, North Carolina, and Dr. Wm. A. Evans, Commissioner of Public Health of Chicago. Dr. Evans is the third graduate of the Tulane Medical Department to receive this distinction, the degree having hitherto been conferred only upon Dr. S. E. Chaillé, Emeritus Professor of Physiology, and former Dean of the Medical Department, and on Dr. L. S. McMurtry, of Louisville, another distinguished member of the medical profession.

ALUMNI WEEK.—The Tulane Medical Faculty announce an Alumni Week from May 9 to 15, to consist of daily exercises at the Charity Hospital and at the Hutchinson Memorial and Richardson Memorial. These exercises plan exhibits, demonstrations and illustrated lectures covering the various branches taught in the Under-Graduate Medical Department. Each day will be devoted to the Department of Medicine, and the Department of

Surgery, another to Pathology and Bacteriology, and two other days will be taken up with the laboratory branches of Anatomy, Physiology, Chemistry and the practical subjects embraced by the specialties. The week will conclude with the class exercises of the candidates for graduation, who are planning an elaborate function, including the planting of ivy on the Tulane campus and evening exercises as a farewell to the institution.

THE ANNUAL COURSE OF EXTENSION LECTURES was inaugurated on March 16, Dr. Charles W. Duval lecturing on *Cancer*; on the 23rd, Dr. G. F. Patton on *Recollections of Student Life in Germany*; and on the 30th, Dr. George Dock on *Typhoid Fever*. The lectures announced for the balance of the course are as follows: April 6, Dr. Charles Chassaingnac, on *Sexual Continence and Prophylaxis*; April 12, Dr. Paul Michinard, *The Management of Labor*; April 13, Dr. J. A. Storeck, *Hygiene of the Gastro-Intestinal Tract*; April 19, Dr. C. Jeff Miller, *The Anatomical Basis Underlying Injuries and Repair of the Pelvic Floor*; April 20, Dr. Irving Hardesty, *The Anatomy of the Ear, in Relation to the Theories of Hearing*; April 27, Dr. J. T. Halsey, *Physiological Action of Some Much-Used Drugs, With Demonstration*.

AMONG THE DISTINGUISHED VISITORS at Tulane during the month of March may be noted Carl Runge, Exchange Professor at Columbia University, who delivered an interesting lecture on *The Problem of Mechanical Flight*.

DR. WM. A. DABNEY, President of the University of Cincinnati, spent a few days in New Orleans, largely to seek professors for his institution, which is undergoing a reorganization.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

Therapeutics, Materia Medica and Pharmacy, by Sam'l O. L. POTTER, A. M., M. D., M. R. C. P. London. Eleventh edition. P. Blakiston's Son & Co., Philadelphia.

This new edition of a well-known work, with numerous additions and alterations, like most other text-books on this subject, attempts to cover

too much ground, including, as it does, an enormous number of drugs, some necessarily of little value or usefulness. The pharmacology of the book is the part least to be commended, being at times not in accordance with generally accepted views. Lack of illustrations and diagrams in the part devoted to this phase of the subject detract from its value. Also, for the medical student and physician there is too much pharmacy and materia medica and too little pharmacology and therapeutics. For example, four pages of enumeration and description of opium preparations and derivatives, with seven and one-half pages devoted to actions, uses and administration of this drug is, in the reviewer's opinion, an incorrect division of space. The alphabetical arrangement of a text-book on drugs and diseases is also not to be commended. The paragraphs on treatment are often mere enumerations of numerous drugs, many of doubtful efficiency, with little expression of the author's own opinion of the respective values of these long lists of remedies.

J. T. HALSEY.

Publications Received.

D. APPLETON & CO., New York and London, 1910.

Nutrition and Dietetics, by Winfield S. Hall, M. D., Ph. D.

Preparatory and After-Treatment in Operative Cases, by Herman A. Haubold, M. D.

Diseases of the Genito-Urinary Organs, by Edw. L. Keyes, Jr., M. D., Ph. D.

J. B. LIPPINCOTT & CO., Philadelphia and London, 1910.

Living Anatomy and Pathology: The Diagnosis of Disease in Early Life by the Roentgen Method, by Thomas Morgan Rotch, M. D.

Serum Diagnosis of Syphilis and the Butyric Acid Test for Syphilis, by Hideyo Noguchi, M. D., M. Sc.

P. BLAKISTON'S SON & CO., Philadelphia, 1910.

Manual of Operative Surgery, by John Fairbairn Binnie, A. M., C. M. Vol. II. *Vascular System, Bones and Joints, Amputations*. Fourth Edition, Revised and Enlarged.

An English Handbook of the Paris Medical School, by A. A. Warden, M. D. Second edition.

WILLIAM R. JENKINS COMPANY, New York, 1910.

High Frequency Electric Currents in Medicine and Dentistry: Their Nature, Actions and Simplified Uses in External Treatments, by S. H. Monnell, M. D.

MISCELLANEOUS.

Annual Report of the Surgeon-General of the Public Health and Marine Hospital Service of the United States. For the fiscal year of 1909. (Washington Government Printing Office.)

Proceedings of the National Confederation of State Medical Examining and Licensing Boards, for 1909. (Published by the Confederation, February 23, 1910.)

Reprints.

The Immunizing Treatment of Hay Fever, William Scheppegegrell, A. M., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.

FOR FEBRUARY 1910.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	6	2	8
Intermittent Fever (Malarial Cachexia)			
Smallpox.....			
Measles.....	2		2
Scarlet Fever.....	4	1	5
Whooping Cough.....	1		1
Diphtheria and Croup.....	9		9
Influenza.....	24	7	31
Cholera Nostras.....			
Pyemia and Septicemia	1	2	3
Tuberculosis.....	42	41	83
Cancer.....	9	2	11
Rheumatism and Gout		1	1
Diabetes	3	2	5
Alcoholism	1		1
Encephalitis and Meningitis.....	6	2	8
Locomotor Ataxia.....	1		1
Congestion, Hemorrhage and Softening of Brain.....	14	3	17
Paralysis	4	3	7
Convulsions of Infants			
Other Diseases of Infancy	5	5	10
Tetanus.....			
Other Nervous Diseases	3	4	7
Heart Diseases.....	64	38	102
Bronchitis	9	3	12
Pneumonia and Broncho-Pneumonia.....	20	20	40
Other Respiratory Diseases.....	3	3	6
Ulcer of Stomach.....			
Other Diseases of the Stomach	5	1	6
Diarrhea, Dysentery and Enteritis.....	19	1	20
Hernia, Intestinal Obstruction.....		2	2
Cirrhosis of Liver.....	4	4	8
Other Diseases of the Liver	3	1	4
Simple Peritonitis	2	2	4
Appendicitis.....	1		1
Bright's Disease	33	22	55
Other Genito-Urinary Diseases.....	3	9	12
Puerperal Diseases	6	2	8
Senile Debility.....	11	4	15
Suicide	4	1	5
Injuries.....	20	16	36
All Other Causes.....	44	32	76
TOTAL	386	236	622

Still-born Children—White, 19; colored, 20; total, 39.

Population of City (estimated)—White, 272,000; colored, 101,000; total, 373,000.

Death Rate per 1000 per annum for Month—White, 17.03; colored, 28.04; total, 20.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.15
Mean temperature 54.00
Total precipitation 4.75 inches
Prevailing direction of wind, northeast.

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No. 11

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

Shortening of the Umbilical Cord from Coiling Around the Fetal Neck.

By J. P. ELMORE, M. D., Edgard, La.

The length of the umbilical cord varies from less than two to seventy-nine inches. Its average length is variously given as 20 or 22 inches.

A cord absolutely long may from coiling about portions of the child's body be relatively or practically short.

Kaltenbach, quoted in William's treatise on Obstetrics, says that in order to permit delivery the cord must be 35 centimeters, about 14 inches, in length, when the placental insertion is high, and 20 centimeters, or 8 inches, long when the placenta is low down in the uterus.

If the cord is not long enough to reach from the placenta to the vulva without undue stretching it is too short.

In a considerable proportion of cases, about one-fourth, we find at birth the umbilical cord coiled one or more times and

more or less tightly about the infant's neck. This is of no consequence unless the cord is thereby rendered practically too short.

A writer in Wood's Reference Hand-Book of the Medical Sciences states that the circumference of the new-born infant's neck is from $6\frac{1}{2}$ to $8\frac{1}{2}$ inches. Two coils about the neck would, therefore, subtract 13 to 17 inches from the available length of the cord.

A child coming into the world with a relatively short cord about his neck is like a roped calf at milking-time, or, to use Shakespeare's simile, like a greyhound straining in the leash. His face and head are congested and purple, the circulation of the blood is more or less arrested from compression of the umbilical vessels and of the vessels of the neck, and unless relief comes quickly he may die. Even when death is averted serious damage to the brain and other organs may result from extravasation of blood.

Extreme tension of the cord may cause its rupture, or ruptures of the umbilical vein or one of its branches. The liver itself may possibly be injured.

At the other end of the cord we may assume that separation of the placenta, partial or complete, occasionally happens. This separation may take place while the fetus is in the womb, while it is in the vagina or just as it is expelled from the vulva. In the last case, respiration, natural or artificial, is possible, and immediate harm to the infant is not likely to follow.

When the placenta is pulled away from its attachment before the birth of the child asphyxia must result—more or less complete, according to the extent of the detachment.

Shortness of the cord, then, whether natural or adventitious, is sometimes a serious matter for the child. It may prove harmful to the mother in three ways: It may prevent engagement of the head in the pelvic canal, and thus cause delayed and difficult labor, necessitating version or a high forceps operation. From ante-partum detachment of the placenta serious hemorrhage may result—a condition nearly as dangerous as that where placenta previa exists. Inversion of the uterus may take place if the placenta remains adherent.

The diagnosis of this complication is not always easy. Very

often we do not suspect it, and only become aware of its existence when the child's head escapes from the vulva. How many times have we delivered a woman with forceps to find that, to all appearances, the whole trouble came from coiling and shortening of the cord! Sometimes we are led to suspect the presence of a short cord, from one or more of the following symptoms given in all text-books of obstetrics:

The fetal head, instead of remaining in the same position relative to the pelvic brim, and becoming gradually engaged in the passage, may move about and turn from side to side, refusing to enter, or the head may advance with each contraction and then recede as if pulled back by a rubber cord.

There may be severe and unusual pain located at the fundus. The woman cannot bear down on account of the severe pain. There may be depression or sinking in of the fundus with each pain.

Having made a probable diagnosis, is there anything we can do to correct the condition and obviate the dangers to our patients? When the condition is discovered only after the birth of the head it is generally possible to slip the loop or loops over the head before the shoulders appear, or it may be easier to slide them back over the shoulders and thus relieve tension. In cases where this cannot be done, and where the tension is great, it is recommended to divide the cord between artery clamps or ligatures and to deliver as quickly as possible. Where the condition is suspected beforehand it is suggested to rupture the membranes early and apply forceps.

None of the authorities to whom I have access, viz., Williams, Leishman, Playfair, Jewitt, Edgar, King, Cazeaux, Charpentier, suggests any other treatment than that I have mentioned. In fact, the consensus of opinion seems to be that nothing more can or ought to be done.

This treatment is simply palliative, aiming at the minimizing of effects and not at the removal of the cause. Can nothing be done to improve the situation before the danger-point is reached? It has occurred to me that the diagnosis can be positively made while the head is still above the brim, and the condition corrected at the same time.

Through a cervix fully dilated it is easy to introduce the

hand after rupture of the membranes, and to determine whether or not the cord encircles the neck. If this is found to be the case we can nearly always, I feel sure, disengage it and convert an otherwise tedious and dangerous labor into a normal one. With the hand in the uterus, palm towards the occiput, we can at the same time push up the head to relieve tension and slip the cord over the occiput. The natural elasticity of the cord helps in its reposition in the uterine cavity, so that prolapse need not be feared.

It may be that this procedure, simple as it is, has already been thought of, practiced and condemned. If so, I have never heard nor read of it.

In the performance of podalic version, when the head presents or otherwise, it would seem advisable to ascertain, after introduction of the hand, whether or not there is coiling of the cord about the neck and to relieve it before proceeding with the version. This little operation may be looked on with disfavor by many as "meddlesome midwifery." No doubt it is meddlesome, but it is not more dangerous than version or the use of forceps, and will many times do away with the necessity for one of these operations, besides saving in many instances the life of the child.

It may not always be possible to remove the cord from the neck, but in most cases it can be done. Of course, it should never be undertaken without full dilatation and clean hands. Anesthesia would be necessary always when the patient is a primipara. With multiparæ it could often be dispensed with.

My experience with this method has been limited, but satisfactory. I have removed the cord in this way only five times. I have, however, on several other occasions, when this complication was suspected, made the manual exploration and satisfied myself that it did *not* exist. Even this is worth knowing. So far no bad results have followed. My first case occurred several years ago. I do not recall the circumstances clearly, but remember only that the cord was disengaged from the neck and that the labor went on to a satisfactory termination. The other cases are as follows:

Mrs. O. A., multipara (six or seven children), had always had easy labors. When I saw her June 13, 1909, the os was

fully dilated, amniotic sac unbroken and head presenting. Head was movable and shifted from side to side. Pains were fairly strong, but head would not engage. After waiting quite a while I suspected that there was a short cord. The membranes were then ruptured and two coils found about the neck. They were removed and efficient labor pains shortly ended the matter.

Mrs. B., July 1, 1909, called me for her third confinement. She told me she had lost a great deal of blood and was still losing. The os was not fully dilated, but soft and dilatable. The sac had not been ruptured. The head presented. Pains were frequent, but not very strong. They were chiefly at the fundus. There was considerable hemorrhage. Suspecting placenta previa, I introduced two fingers within the cervix, but could not feel the placenta anywhere around its margin. I dilated the os with my fingers, ruptured the membranes and passed my hand up to the child's neck, where I found two coils of the funis snugly applied. These I slipped over the occiput, taking care not to let the cord prolapse, and then applied forceps. In a few minutes a living child was born.

Examination of the placenta showed normal implantation—i. e., near the fundus. I presume that there was partial detachment of the placenta from tension on the cord. Had the cord remained about the neck it is likely that forceps delivery would not have been so easy and she would have lost much more blood than she did.

Mrs. E. S., multipara, August, 1909, presented most of the symptoms of shortening of the cord. Exploration proved that the cord was *not* about the neck. At birth, however, the cord was found wrapped around the waist, with two turns about one leg above the ankle, so that there was real shortening, after all.

Mrs. P. R., 36 years old, in her fourth pregnancy, began losing the waters Oct. 19, 1909, at 6 a. m. The waters escaped in gushes at intervals throughout the day. At 3 p. m. I saw her. She had felt no pain whatever. The os was dilated to the size of a half dollar. There were feeble contractions, perceptible to the examiner, of which the patient was unconscious, or which at least gave her no pain. During these contractions the child's head could be felt to change its position at the brim.

After waiting a reasonable time and considering that the waters had already in great part escaped, I did not hesitate to promote dilatation with a view to discovering the exact state of affairs and also bring on more powerful contractions.

The os was gradually stretched and the hand passed over the neck to the shoulders. At first I could feel nothing but what I took to be folds or wrinkles of the skin of the neck. Then I felt a small flattened cord about the neck. With two fingers this was stretched enough to slip it over the occiput and head, and up again into the uterus. The tension of the cord and its elasticity made it easy to restore. Without removing the hand, further search was made, and a second loop found, which was disposed of in the same way. As the position of the head was good, R. O. A., I looked for a quick ending of the labor. At the end of an hour there was no progress and no pain. The moving about of the head ceased, however, after removal of the coils. I then, at 7 p. m., put on the forceps, and at 7:30 the child was born in excellent condition and weighed eight pounds. As it was necessary in this case to make considerable traction on the cord to dislodge it, I was apprehensive of injury to the infant and was quite relieved to find that it had apparently suffered no harm.

Mrs. S. H., the mother of several children, who had always had short and easy labors, was confined Oct. 1, 1909. When I saw her at 1 a. m. she had already lost the waters, and the os was dilated to the size of a silver dollar. Pains were frequent and strong, but not prolonged. Dilatation took place slowly, but the head would not engage. Suspecting coiling of the cord, after waiting four hours, I completed the dilatation manually, explored and found the cord *not* around the neck, and that the head was in the first position. Forceps was then applied above the brim, and with great labor I succeeded in bringing forth a vigorous boy weighing thirteen and a half pounds. The deceptive symptoms were here due to the unusual size of the child; the head was enormous.

Mrs. B. S., pregnant for the second time, had been sick since 10 a. m., Jan. 3, 1910. From 9 p. m. till 2 o'clock the next morning, when I first saw her, the pains had been frequent and agonizing. Examination disclosed a fully dilated os, with a

large and protruding pouch of waters; the head in the L. O. A position, but high up. I at once ruptured the membranes, and, as the head did not seem to be sufficiently flexed, I passed my hand into the uterus and over the occiput to bring about proper flexion. In doing this I found two tight bands of the cord about the neck. These were removed in the usual way considerable stretching being necessary. In a short while forceps delivery was resorted to and easily accomplished. The infant, when born, had the cord wrapped once around its body. The child was pale and limp and had to be spanked before it would breathe, but was all right in a few minutes.

My report would be of more value had I measured the length of the cord in each instance, and I regret that it was not done. In no case was the cord absolutely short. They seemed to be of average length except in the cases where there were extra coils about the waist and leg.

In two of my cases the cord was not found around the neck, but the symptoms that led to exploration were satisfactorily explained by other conditions found after birth.

All the cases described were of white multiparæ. In all, dilatation had already taken place, or was easily brought about by slow and gentle stretching with fingers and hand. In no case, so far as I could perceive, was any damage inflicted upon vagina or cervix. Every child was born alive and is still living.

With many primiparæ also this method can be practiced. (I have done it once with a negative finding.) With primiparæ, however, we should not resort to this measure without serious consideration. The dilatability of the genital tract is very slight in some of them, and an inexperienced man might cause rupture by haste and violence.

Prolapse of the cord would seem to be one of the dangers of this little operation. It has not happened in any of my cases. If it should take place, I am convinced that it could be readily reduced. When prolapse occurs through a partially dilated os it is a different and more serious matter, but, with an os fully dilated, which is a *sine qua non* in this operation, reduction would not be difficult. In no case have I had the slightest trouble in returning the cord to the uterine cavity.

The stretching of the cord, to slide it over the head, might at

times cause injury to the child, but it would appear less objectionable than the prolonged strangulation to which the infant is subjected when the coils are not removed.

In my opinion, the only real danger in performing this operation is from sepsis, and this must be guarded against just as we do in every other intra-uterine manipulation.

None of the patients whose histories I have given had puerperal fever or seemed any the worse for my interference.

Laryngeal Tuberculosis; Some Points of Interest to the Family Physician.*

By ARTHUR I. WEIL, M. D., New Orleans.

There are certain clinical facts concerning laryngeal tuberculosis which, however well known to all medical men, are of sufficient importance to warrant constant repetition, and certain observations which, though familiar enough to those who are constantly seeing this class of cases, are nevertheless well worth calling to the attention of others to whom laryngeal tuberculosis is only an incident in a general or pulmonary infection. A brief consideration of these points is all that I propose.

The proportion of pulmonary cases which sooner or later show an extension to the larynx is not easy to determine. Statistics bearing on this question, as is frequently the case with statistics, show marked discrepancy. They vary from 5% by some observers to 50% by others. Nor, indeed, are such differences surprising in view of the varying sources whence the opinions come. Our knowledge of this subject is derived largely on the one hand from the reports of sanatoria devoted to the treatment of consumption and, on the other, from the records of public clinics which, likewise, treat tuberculosis exclusively. Many sanatoria refuse admission to patients who show laryngeal involvement, and almost all demand that their patients be in the primary or early secondary stage, where the proportion of laryngeal cases is necessarily small. These institutions naturally report comparatively small percentages. The con-

* Read before Orleans Parish Medical Society, March 28, 1910.

verse is true of the clinics. The patients who attend the public clinics are not of the class who lightly seek medical advice, and are apt to allow their disease to extend rather far before they become seriously alarmed. Incipient cases are the rare exception at the clinics. Indeed, it is not unusual that patients well along in the second or even in the third stage are first prompted to seek relief by hoarseness, dysphagia or laryngeal discomfort, the lung condition never having attracted their attention, the cough, weakness and general malaise being attributed to a chronic cold. Under these circumstances it is quite possible that the clinic statistics are as much too high as the sanitorial too low. Lockard gives figures from fifteen observers in various parts of the world which vary from 13% to 97%. The average of the fourteen reports is 35.5%. He is inclined to consider this estimate rather too low, believing that a systematic throat examination of all patients suffering from pulmonary tuberculosis, independent of symptoms referable to the throat, would reveal sufficient incipient laryngeal tuberculosis to appreciably increase the percentage. My own estimate, based on observations during several years' service as laryngologist to the tuberculosis clinic of the New York City Health Department and the Riverside Hospital for Tuberculosis, also in New York, where from three to four thousand new cases were treated annually and where a routine throat examination was made of every positive pulmonary case, is somewhat lower. Without having made any accurate tables, I should place the number at 20 to 25%, including incipient cases with small diseased areas which are readily amenable to treatment. From whatever source the figures are taken, it is clearly apparent that the proportion of laryngeal cases is large enough to call for the utmost alertness on the part of the family physician. The delicate laryngeal mucous membrane, constantly bathed in bacilli-laden secretion, incessantly in motion during the commonest acts of breathing, speaking and swallowing, inclined to irritation, hyperemia and slight traumatic abrasions by the frequent cough and at best with diminished nutrition and powers of resistance, as are all the tissues of a tuberculous individual, is naturally prone to infection. Eternal vigilance is the price of laryngeal integrity. Beyond question, one of

the first duties of the family physician is a constant surveillance of the laryngeal condition. His efforts should be directed toward preserving an intact mucous membrane. This is aided by the use of appropriate oily sprays or astringents and, above all, by careful supervision of the hygiene of the throat. Much can be accomplished in this manner, but of infinitely greater importance is the early discovery of the true lesions. Tubercular lesions in the larynx, when treated in their incipiency, are not difficult to cure. Yet a few weeks' delay may make all the difference between success and failure. It is almost superfluous to call attention to the lessened chances of the patient if the laryngeal condition is allowed to progress beyond the early stage. Under these circumstances, it does not seem an unreasonable suggestion that all consumptives be subjected to a routine weekly or bi-weekly examination, preferably by a specialist, but where that is impracticable by the family physician.

His scrutiny will perhaps be carried out more intelligently if his attention is briefly called to certain external symptoms which, independent of a laryngeal examination, should when present excite suspicion. A quick tiring of the voice, even from moderate use, with a consequent disinclination to use the voice more than necessary, is always suggestive. Impairment of the voice sounds varying from huskiness or slight hoarseness to complete aphonia, especially when unaccompanied by the usual signs of ordinary laryngitis such as a burning sensation in the larynx during phonation or coughing or even when at rest, and the absence of an irritative throat cough. A sticking or tickling sensation in the larynx, a dryness of the throat, which is sometimes decidedly annoying; painful deglutition, especially a sharp, radiating pain, which shoots up into the head or toward the ears; very characteristic is the complaint that solids or semi-solids can be taken with comparative ease, but that swallowing liquids is painful. All these signs, though suggestive, are by no means decisive. The presence of one or more of them should cause careful search for possible beginning foci in the larynx. It is at this period that the lesions are minute and most responsive to treatment.

It is manifestly impractical to mention here the various

laryngeal appearances which are to be found in tuberculosis of that organ. They are described in all textbooks on the subject and are readily accessible to anyone interested. But there are one or two points not mentioned in the books, or, if touched upon at all, it is in such a way as to be possibly misconstrued by the casual reader. We often read that one of the earliest signs of laryngeal tuberculosis, or, as it is sometimes called, the laryngeal pre-tubercular state, is a peculiar paleness of the mucous membrane, not only of the larynx, but of the pharynx and soft palate as well. The contrary is often the case. Although paleness of the mucous membrane is very common in tubercular individuals, being simply a local manifestation of the general anemia of this disease, where there is to be a local tubercular infection there is usually a definite period of more or less marked hyperemia, existing frequently for a considerable time before there is other evidence of infection. A localized hyperemia limited to one of the cords or arytenoids, the inter-arytenoid space, one of the ventricular bands or the epiglottis is especially characteristic. Occasionally there is diffuse redness of the whole larynx, but it is the localized hyperemias that chiefly excite suspicion.

A very early symptom not mentioned, to my knowledge, in any of the books, but which I have noted so frequently that I have come to attach considerable importance to its appearance, is the presence of a peculiar laryngeal paresis. The patient complains of hoarseness, sometimes quite marked, causing the natural inference that there is a fair amount of laryngeal involvement. On the contrary, examination reveals a normal mucous membrane except for slight cloudiness or boggi-ness, the hoarseness being caused by a paresis of the thyro-arytenoid muscle, the so-called musculus vocalis, or intrinsic muscle, of the cord. During phonation the cords, instead of perfectly approximating, present an oval cleft between their edges extending from the anterior commissure all the way back past the processi vocali to the posterior edge of the arytenoids, with resultant hoarseness or thickening of the voice. The paresis persists in spite of treatment. Its cause has not been explained, but where it exists it is well to examine frequently for minute ulcerations or localized infiltrations, nor are they long, as a rule, in making their appearance.

Small ulcers which occasion pain out of proportion to their size or depth are apt to be tubercular, the excessive pain being due probably to a more deep-seated infiltration not apparent on the surface. The presence of large ulcers not particularly painful and interfering little or none with deglutition points rather to some other form of infection. Syphilitic ulcers, even when extensive, often give rise to comparatively little discomfort. The possibility of a mixed infection must always be remembered. They are by no means uncommon, and are especially stubborn to treatment. Malignant growths in the larynx, unless very large, rarely cause as much pain as tuberculosis.

A very important phase of laryngeal tuberculosis which is of especial interest to the family physician is the management of a supervening pregnancy. In spite of the importance of this subject, it has been so little considered and discussed among physicians generally that I am going somewhat into the details and hope by this means to provoke some discussion of the matter this evening.

Strangely enough, there exists a superstition in the minds of some that pregnancy exerts a favorable influence on tuberculosis generally, though there is, to be sure, no foundation in fact to support such theory. Among most it is conceded that pregnancy is a serious complication of consumption, and the advent of gestation is regarded with dread by the attending physician. But where there is laryngeal involvement the prognosis is infinitely more serious. The beginning of the pregnancy is the signing of the death-warrant in nearly every case, the only possibility of a reprieve being an early natural or artificial emptying of the uterus. It is clear why pregnancy has such a deleterious influence on laryngeal phthisis. Freudenthal, studying the question at some length, mentions four physiological circumstances of pregnancy, each of which adds its baneful influence to the laryngeal lesion. First, there is the impaired nutrition. With the growth of the foetus the mother requires ever-increasing nourishment, both for herself and her offspring. Remember the difficulty of supplying sufficient nutrition to the tuberculous patient, at best, the large amount of milk and eggs they are compelled to consume in order to maintain their own individual strength and

vitality, and consider how much more this would be the case where the mother must feed not only herself, but the growing foetus as well. Add to this the presence of dysphagia sufficiently marked to render eating difficult, and sometimes impossible, and it is clear how the added burden turns the tide against the patient.

Second, the enlarging fetus gradually fills the abdomen, embarrasses the movements of the diaphragm and renders breathing more and more difficult. Even in a patient with unobstructed larynx respiration during the latter months of pregnancy is often labored. Where there is arytenoid infiltration, thickening of the cords, subglottic tumor or large interarytenoid swelling there is an intensification of dyspnea occasionally, even to the verge of suffocation. Tracheotomy is sometimes necessary.

Third, the not unusual complications of pregnancy, such as anemia, weakened heart's action and the like, have their deleterious influence on the larynx as well as on the lungs.

Fourth, there is that symptom of early pregnancy present in so large a proportion of cases as to be considered practically physiological—the vomiting. It is no more than natural that this frequent vomiting and the accompanying retching should be a source of added irritation to the larynx; that congestion should be intensified, inflammation, if present, increased, and those painful ulcers become a source of agony during each act of vomiting.

With these four cases in mind, and in addition the well-known physiological relation existing between the female genital organs and the larynx, which may possibly play its part as well, it is plain how pregnancy has a directly unfavorable influence on laryngeal tuberculosis.

This is especially true in those cases of diffuse laryngeal tuberculosis, which are exceedingly common. Where the lesion is limited in extent, where there is only slight interarytenoid, thickening or laryngeal tumor, the chances are somewhat better. Also in those cases where the laryngeal affection develops during the pregnancy, especially in the later months, the prognosis is more favorable. On the whole, however, it is only a gloomy prospect which confronts the patient. Even if

she survives the pregnancy the parturition is fraught with exceeding danger, and if she passes safely through this ordeal the recorded cases show that in most instances she is not likely to live more than one or two years.

So, almost invariable is the unfavorable course of a pregnancy complicating laryngeal tuberculosis that the advisability of an abortion should always be considered. There has been much difference of opinion as to the efficacy of this measure, whether we are justified in sacrificing the child for the possibility of saving the mother, and whether, if we make the sacrifice, the mother's chance is materially improved. Such questions are best answered by studying the records of as many cases as possible. Strange to say, however, recorded cases are not numerous, for pregnancy, though not uncommon in pulmonary tuberculosis, is fortunately a rather unusual complication of the laryngeal variety.

Kuttner, of Berlin, was the first to call attention to and make a comprehensive study of these cases. In a preliminary report about eight years ago, and over six years before the appearance of his second paper, he requested physicians throughout the world, and especially in Germany, to publish all cases bearing on the subject, or to communicate them personally to him. In spite of this appeal, which doubtless reached the eyes and focused the attention of many upon this hitherto somewhat neglected subject, he was able to collect only 230 such cases. Of these cases only sixteen, or about 7 percent, survived the pregnancy, and of that number three died within one or two years after confinement. Among the sixteen were also several in whom the larynx became involved late in the pregnancy. Leaving them out, since they do not really belong in this table, we have less than 4 per cent who survived their pregnancy more than a year or two. In twelve cases abortion was performed, giving favorable results in nine cases, death in three cases. In seven cases of induced premature birth during the latter months of pregnancy, six died and one recovered. This would seem to prove that our best hope is in an early abortion; not in every instance, to be sure, but at any rate in those cases where there is a chance of improvement. No general rule can be formulated as a guide to the management of these cases;

each must be decided for itself. But it is well to bear in mind the grave prognosis, where no abortion is performed, and to remember that abortion, if it is to be of service, must take place in the early months of pregnancy. If our experience teaches anything, it is that each month's delay adds greatly to the risk. It is worthy of note, in this connection, that statistics show a very large mortality among the children, even when the mothers are allowed to reach their full term. Kuttner's table shows a mortality of 80 per cent. Where one might hesitate to advise abortion were the chances good of bringing into the world a healthy child, with such a large child mortality it would seem that we are justified in considering the welfare of the mother in preference to the slim chance of the child.

Though the treatment of laryngeal tuberculosis chiefly concerns the laryngologist, there are certain aspects which are of general interest, and especially to those who are expert in the use of the X-ray and similar therapeutic measures. In the last few years the subject of light and electro-therapeutics has received such general consideration, has been successfully applied in so manifold and varied fields, that it is something of a disappointment to find that so little has been accomplished along this line in the successful treatment of laryngeal tuberculosis. Each of the various mechano-therapeutic measures has had its active advocates. There are those who claim with the Finsen light to have achieved brilliant individual success; equally sanguine have been the supporters of the high frequency current, the electric light, the X-ray and the ultra-violet ray. My own knowledge and experience with these various methods has been small, but, such as it is, it is not encouraging. The very existence of so many exploiters of so many different methods is sufficient proof that no very valuable cure has been discovered.

Considering this question several years ago, it seemed to me, since the lesions of laryngeal tuberculosis and of lupus are histologically practically identical, and since lupus of the skin responds so readily to X-ray treatment, that in this treatment lay our most promising hope in laryngeal cases. Accordingly, in conjunction with the X-ray specialist who did the work for the tuberculosis clinic, and who zealously co-operated in the

experiments, we used this treatment externally on a series of patients, without, however, noting any improvement. This was attributed, possibly, to the fact that those rays which are of therapeutic value in the cure of lupus are not of sufficient penetrative power to have effect on the larynx when applied externally, having first to pass through the skin and underlying tissues. But some other method of applying the rays might be more successful.

We then experimented with tubes of various shapes designed to introduce the rays through the mouth directly into the larynx. Although our manufacturer expended much time and ingenuity in designing these tubes, and though he constructed several tubes of various patterns, we never succeeded in getting one that answered our purpose. My knowledge of the technical side of X-ray work is so small that I can make no practical suggestions. I do believe, however, for reasons given above, that if it is ever possible to devise such a tube wherewith the rays could be directed into the larynx through the mouth—and that is essentially a problem for the X-ray specialist—a great step in advance will have been made in the successful treatment of the disease.

Direct sunlight reflected into the larynx by means of the forehead reflector and the laryngoscopical mirror sometimes gives considerable relief to the subjective symptoms, though usually no permanent benefit. Moreover, this measure is, as a rule, not very practical, for, in order to be effective, each treatment must last from ten to fifteen minutes, and the patient becomes very tired from maintaining for such a long period the strained position necessary. Besides, we cannot always have the bright sunshine essential to this procedure.

Concerning further local treatment, it is needless to go into detail. A discussion of the comparative advantages and indications of the various remedies, such as lactic acid, formalin, etc., and the conditions which may or may not call for surgical procedure, is outside the scope of the present paper, though it might be mentioned in passing that tracheotomy is a somewhat neglected and often useful means of giving relief to those advanced cases where all other methods have proven futile. Its chief objection, of course, is the unfavorable influence which

it often exerts upon the lung condition. Otherwise, just two points need be mentioned, which are hygienic rather than local. These are, first, voice-rest; second, feeding.

One is apt to forget the extreme importance of voice-rest in the successful treatment of laryngeal tuberculosis. It ranks far above any local measures, and the most skillful treatment without it is often of no avail. The best results are to be obtained if the patient is kept quietly in bed or on his chair, the use of the voice for any purpose absolutely interdicted. When communication is necessary with his attendants it should be by means of paper-pad and pencil. Such strict measures are, however, often impracticable. But if we wish to obtain anything like the best results from treatment we must insist that the voice never be used above a whisper. It must be a soft, gentle whisper, the loud, forced whisper being, as a rule, more trying to the larynx than the use of the full voice. It is self-evident that all prolonged conversation, reading aloud or singing must be absolutely prohibited. These simple measures alone, without any treatment, sometimes suffice to dispose of slight beginning involvement.

The diet is an important factor in the treatment of all tuberculosis. In cases of laryngeal tuberculosis it should conform to that indicated in pulmonary phthisis, but when dysphagia supervenes certain modifications become essential. I cannot do better than quote Lackard on this subject.

Owing to the mechanical hindrance to deglutition and the resultant nasal regurgitation, and the pronounced aversion to eating consequent upon the severe pain attending every effort at swallowing, both the quantity and quality of food, as well as the method of taking it, demand careful regulation.

The bulk must be reduced to a minimum, while the nutritive value is maintained to the highest concentration, at the same time keeping the food bland and unirritating. It must be neither too hot nor too cold, too thin nor too solid, too sweet not too sour, and all spices must be omitted. Nothing that acts as a mechanical, thermic or chemical irritant should be used.

As stated above, fluids often cause more trouble than solids or semi-solids. Where they are essential they are best taken by gulping large quantities at a time, sipping being often out

of the question. Milk, being an essential of diet, is best given, as a rule, in the form of one of the various thickened preparations, as koumiss, zoolac, rennet, etc., rather than in the fluid form. Lockard, in his book, gives several receipts for the preparation of thickened foods, both nutritious and easily swallowed. These, and many others, may be necessary in maintaining the nutrition when deglutition has become difficult.

Louisiana State Medical Society Proceedings.

EDITED BY PUBLICATION COMMITTEE.

DR. E. M. HUMMEL, Chairman, 141 Elk Place, New Orleans, La.

DR. R. W. SALTER, of New Orleans, read a paper on

Ophthalmia Neonatorum; Etiology, Pathology and Processes Causing Blindness.

ETIOLOGY: Acute purulent conjunctivitis of the new born, produced by the introduction of morbid or infective vaginal secretion into the conjunctival sac during labor, and frequently the eyes are infected when washing the child's face and head. Children have been born with well-developed purulent inflammation, and both corneæ sloughed, showing that infection had taken place in utero. Prolonged labors and face presentations favor the infection of infants' eyes. This inflammation manifests itself in from three to five days after birth, and, I believe, the average being three days. The gonococcus is found in from 70 to 80 per cent of cases. Most ophthalmologists to-day agree that the gonococcus heads the list of bacteria causing this disease. The xerosis and diphtheritic bacilli are not infrequently found along with gonococci. Mild types are caused by the pneumococcus, streptococcus, staphylococcus, bacillus coli communis and the Kock-Weeks bacillus. We should not lose sight of the fact that mild types, resembling acute catarrhal conjunctivitis, are extremely rare, and the type most prevalent is the characteristic purulent inflammation.

PATHOLOGY: The lids are red and swollen, with pus flowing

between them, or the upper lid may so distend and hang over the lower, with edges firmly sealed together by dried pus, resembling abscesses. Both the palpebral and ocular conjunctivæ are red, congested, swollen and covered with pus. Chemosis is present, although severe enough to interfere with the nutrition of the cornea. The palpebral conjunctiva is thrown into folds, the papillæ are enlarged and bleed on pressure. Section of the conjunctiva show the epithelial cells on the surface are irregular in thickness, desquamating and some superficial cells containing the gonococcus. The papillæ are swollen. Epithelial cells are separated from each other by passage through them of the enormous number of polynuclear leucocytes. Between the epithelium are found numbers of mononuclear and polynuclear cells, although in the section the greater number seen are mononuclear cells, the polynuclear cells are found in greater number in the discharge. In the subepithelial tissue there is a large and irregular distributed exudate. The plasma cells are found in great numbers in the connective tissue beneath the papillæ, but when they approach the epithelium they become rapidly broken up, the cells stain more faintly and lose their protoplasm, hence they are practically absent from the papillæ, no doubt due to the presence of the toxin produced by the gonococcus in the epithelium. The fact that the protoplasm cells become broken up is of the greatest importance in showing the action of some powerful toxin on the cells.

PROCESSES CAUSING BLINDNESS: The chief cause of blindness is the destruction of the cornea, either partially or totally. In every case of conjunctivitis the anterior epithelium of the cornea is affected to some extent, and very often the irregularities produced on the cornea can be demonstrated by staining with fluorescein, when delicately stained points of the roughened epithelium can be made out with a lens. In the new-born the epithelium is thinner, and the gonococcus having the special facility of penetrating the cells, producing a toxin, which destroys the protoplasm, favoring invasion. The slightest amount of edema of the limbus will interfere with the nutrition of the cornea, and mild degree of chemosis will be sufficient to lessen or prevent the flow of lymph to and from the

cornea, retard or block the circulation fluids in the proper substance. In blocking the lymph flow the cornea presents a uniformly dull-gray appearance, stasis of the interstitial substance, followed by engorgements of leucocytes, and abscess is formed and the cornea breaks down. The attack of the form without exceeds the rapid disintegration and abscess formation from within. In the ordinary forms of conjunctivitis the anterior epithelium and Bowman's membrane serve to protect the cornea from invasion, but whenever the integrity of these structures is weakened or destroyed by the gonococcus the ulcer penetrates more easily by reason of the weakened condition of the proper substance of the cornea.

When the cornea rapidly breaks down from abscess or ulceration, the perforation will be large, and almost the entire iris will prolapse with expulsion of the lens. The remnant of corneal tissue is so adhered by scar tissue with iris as to obliterate the spaces of Fontana, and aqueous humor continues to be secreted, the eyes bulge forward from steady pressure, causing the iris, which has taken place of the cornea, to enlarge (Anterior Staphyloma). Later in life these eyes not infrequently rupture. Where the ulcer is slow in formation and deepens slowly, the perforation, the prolapse and incarceration of the iris and scar are small. The chief damage is to the lens capsule by the loss of aqueous humor, the adhesion of the iris in the scar tissue, affecting its nutrition, and granulations spring up with the capsule to form an anterior polar cataract. When the lens has escaped, and entrance for infection is opened, the gonococcus invades the vitreous rapidly and producing the most violent type of abscess of the globe, gonorrheal panophthalmitis.

I wish to call your attention to another damage, the production of nystagmus. Nystagmus is a continuous lateral movement of the eyes, due, in this condition, to faulty development of the faculty of fixation from opaque corneas.

Gonorrheal arthritis occurs in some infants secondary to ophthalmia neonatorum.

DR. ERNEST A. ROBIN, of New Orleans, read a paper netitled

The Occurrence of Several Cases of Juvenile Cataract in One Family.

The crystalline lens being a non-vascular structure, practically the only disease occurring in it is cataract—opacity of its substance. There are a number of forms of cataract, depending, for the most part, for their differentiation upon the location of the opacity in the lens. In the young, cataracts are always soft, while in the aged, the opacity being brought about by hardening of the nuclear, they are hard. A cataract is said to be ripe when the entire structure of the lens is opaque.

The most frequent form of cataract in childhood is the lamellar. This consists of two cup-shaped opacities enclosing the transparent nuclear between them. The opacity may be quite small or it may involve the entire area of the lens.

Horner believes that this variety of cataract has some relationship with rachitis and that subjects with juvenile cataracts generally show poor mental and physical development. The cases, forming the basis of this report, are taken from our private records. They are of three brothers, aged 17, 15 and 14 years, seen and treated at different times. They were well nourished, showed no physical deformity beyond the one under consideration and above the average in intelligence.

In all three the cataracts were of the lamellar variety. The only other anomaly observed was a congenital coloboma of the choroid and iris in the cadet's right eye. Owing to the coloboma of the iris, uncovering the clear periphery of the lens, vision in that eye was much better than in the fellow eye, which was reduced to counting fingers at two feet.

We had the opportunity to examine their father's eyes and found nothing wrong beyond a high ametropia, the proper correction of which raised vision to normal in each eye. The glasses ordered for him were: R: +6^{50s} + 1.c ax 15° L: +6^{50s} + 1.c ax 165°.

I will present the cases in the order of their treatment:

R. W., aged 17, came to us Feb. 16, 1901. Sight poor since early childhood. RV=20/c. LV=20/cc. Javal Ophthalmometer shows: R 3⁵⁰ ax 80° L 3⁵⁰ ax 100°. R. E. Thorough dis-

cession of lens with knife needle under cocain. No complication attended absorption of lens.

April 9, 1901. R. E. Made a discession of secondary (capsular) cataract with Graefe knife. Result very good. April 13, 1901. Eye is well. $R\ V +13^s +2^c$ ax $90^\circ = 20/xl$ with $+3$ added to this reads sn. No. 1.

Feb. 17, 1902. L. E. Thorough discession of lens with knife needle. March 6, 1902. Absorption going on well; allowed to go home. Dec. 2, 1902. Returns with wound in capsule healed and absorption of lens incomplete. Made free discession of remaining cataract. No complication followed.

June 22, '03. $R\ V +13^s \text{C} +3^c$ ax $90^\circ = 20/L +3^s$ added for near.

$L\ V +13^s \text{C} +2^c$ ax $90^\circ = 20/xx +3^s$ added for near.

R & L V with above glasses $= 20/xx$ and sn. No. 1.

Media clear and pupils round.

A. W., aged 14. Came to us Oct. 27, 1903. Sight poor since early childhood. $RV = 20/c$. $LV =$ fingers at 2 feet. R. E. lamellar cataract with congenital coloboma of choroid and iris. L. E. lamellar cataract.

Oct. 28, 1903. L. E. Moderate discession with knife needle. No complication followed. Goes home on Oct. 29, 1903; to continue atropin once daily. Sept. 30, 1904. L. E. lens completely absorbed and there is a large clear opening in membrane. Fundus looks well. $LV +14s = 20/c$ w. $+18s = Sn.$ No. 4. March 12, 1905. L. E. scope shows opening in membrane still clear. Javal: L 1.75 ax 90° . $LV +14s = +1^{50c}$ ax $90^\circ = 20/xl$. $+4s$ added to this gives Sn. No. 3 at 10 inches.

E. W., aged 15. Came to us July 26, 1907. Sight poor since early childhood. R and L lamellar cataract. $RV = 20/cc$. $LV =$ fingers at 5 feet.

July 27, 1907. L. E. Moderate discession with knife needle.

July 28, 1907. Had pain in eye and nausea all last night and to-day. $T +2$. Cornea steamy, severe ciliary injection. Made at once a linear extraction with keratome and let out a large amount of lens substance. This relieved all symptoms of secondary glaucoma.

July 29, 1907. All well and absorption going on satisfactorily. Allowed to go home.

Oct. 11, 1907. Lens completely absorbed. There is a cap-

sular bridle extending obliquely across pupil with clear areas above and below it.

LV+8s=20/c+16s=Sn. No. 2.

It is still a mooted question among the best modern authorities as to whether cataracts occurring in very young subjects can properly be classed as congenital. Indeed there seems to be a consensus of opinion that sufficient evidence is lacking to show that they are the result of intra uterine disease. For this reason I report these cases as juvenile cataracts.

An important point to be noted, however, is that these cataracts, being soft, can be safely removed by the discission method and useful vision given to the patient. Early interference is generally indicated because of the improved sight conferred upon these little patients during the most plastic stage of their lives.

The occurrence of three cases in one family would seem to lend some weight to the well-established idea that the influence of heredity is a potent one in its etiology.

DR. M. FEINGOLD, of New Orleans, read a paper entitled

Prevalence of Ophthalmia Neonatorum.

When one is called upon to give figures as to the frequency of any disease there are two courses open for arriving at such data:

First:. The actual statistics of the morbidity.

Second: The absolute fatality of that particular disease in a given community, and from this absolute fatality to draw conclusions as to the actual occurrence of the disease itself.

In ophthalmia neonatorum the first course would seem the easiest, the disease being easily recognized even by the layman, but such is not the case, owing to a number of circumstances, and we have no figures from the private practice of the obstetrician or general practitioner and only meager reports from certain lying-in hospitals.

Before the introduction of Crede's method from 1 to 20 per cent of the new born in various lying-in hospitals were affected

with ophthalmia neonatorum. Since then the percentage has fallen to 2/10 of 1%. In the average private practice, and still more in cases of confinement where neither physician nor midwife have been called upon, the percentage must undoubtedly be higher than 1/10 of 1%, due to the fact that a prophylactic can either not be carried out thoroughly enough or is not carried out at all. It is therefore safe to assume for the average of the whole population a percentage of morbidity of at least 5/10 of 1%.

The second method by which we may arrive at the percentage of actual morbidity, by concluding backward, so to say, from the number of fatalities (blindness), is practically the only course open in ophthalmia neonatorum.

With the aid of data from lying-in hospitals, foundling asylums and eye clinics we can easily figure out the percentage of fatalities in ophthalmia neonatorum. "If a case comes under treatment in season with the cornea still intact the latter can almost to a certainty be maintained in a healthy state. The prognosis can, therefore, be stated as correspondingly favorable" (Fuchs). Fuchs also gives the following statistics:

	Cases of Ophthalmia Neonatorum.	Percentage of injured eyes.
Berlin Charité	213	1.9%
Munich Lying-in Hospital . .	123	2.4%
Dresden Lying-in Hospital . .	1,378	3.8%
Stuttgart Lying-in Hospital .	538	4.6%
Vienna Foundling Institution	1,347	21.0%
Prague Foundling Institution	300	45.7%

You will see from the above a great divergence in the percentage of fatalities of eyes ending in blindness, from 1.9% to 45.7%. The explanation for this great variation is due to the fact that in some of these institutions the new born come under treatment at once and are receiving the proper nourishment from their mothers (lying-in hospitals); in the others, the new born may not come under observation until some time after birth and do not receive the mother's breast in the institution (foundling asylums), it being a well-known fact that the physical health of the infant has a great deal to do with the ultimate outcome of this disease.

In private practice, again, the percentage of fatality will neither be as low as 1.9%, because it is not well possible to give under these conditions to the little patient as good attention as can be given in an institution of this kind, nor will the fatality be as high as 45.7%.

Some happy medium, then, between these two extremes will give us the percentage of fatality in all cases of ophthalmia neonatorum, and when we apply this factor to the reliable statistics of the blind we might in this way arrive at the actual frequency of ophthalmia neonatorum. As to these sources we have reports from schools for the blind, reports from asylums for the blind and statistics taken from the census reports. In all these reports the assigned cause for the blindness is not of equal value; for in a census report that covers a population like ours of about 80,000,000 inhabitants the data as to the cause of blindness cannot aspire to as much exactness or certainty as statistics culled from a school for the blind; here a small number of individuals are housed together in an institution easily accessible to an oculist; there the individuals are scattered over an immense territory, often in spots inaccessible to any oculist. Reports from asylums for the blind hold a middle place between these two; as to the history of this trouble they certainly offer very poor material, the inmates recruiting themselves mainly from the ignorant and unsuccessful classes.

In a series of 2,528 carefully observed cases of blindness in Germany, Magnus found that 275, or 10.8%, were due to ophthalmia neonatorum.

Oppenheimer, in a series of 572 cases of blindness in the United States, found that 18 cases, or 3.14%, were due to ophthalmia neonatorum.

Of the 333 inmates of the Sheffield School for the Blind, 136, or 42%, owed their blindness to ophthalmia neonatorum. (Simeon Snell.)

In 1895 7% of the blind in Switzerland could blame this disease for their condition.

Of the blind in the German asylums in 1876, about 30%, and in 1896 about 19%, had lost their sight through ophthalmia neonatorum.

Of the 50,668 blind people in the United States in 1890,

Swann Burnett assumes that at least 30% owed their blindness to ophthalmia neonatorum.

The twelfth census of the United States, taken June 1, 1900, gives us the following data: Of the total number of blind, 64,763, 1,618 became totally blind, and 1,021 became partially blind, during their first year. The bureau ascertained, furthermore, that of these 441 became totally and 203 became partially blind through "Babies' Sore Eyes," or 52.2% of all the individuals had acquired their blindness during their first year. "In these cases the cause of blindness was probably ophthalmia neonatorum, or 'Babies' Sore Eyes,' since other diseases of the eye causing blindness under one year of age are extremely rare" (S. N. D. North, the Census Director).

An important fact can be deduced from the above figures, the fact that this disease, if neglected or in a malignant form, is more than apt to end in total blindness in the portion of two to one.

I am fully aware of the great divergence in the percentages given in the different statistics, but they may be explained to some extent, at least, by the fact that ophthalmia neonatorum seems to be more frequent and more malignant in some countries than in others; that statistics are more or less carefully compiled, and last, but not least, that Crede's method of prevention of ophthalmia neonatorum has so completely altered the frequency of this disease that for some time, at least—as long as we are in the transition period, still dealing with cases dating from the time before the introduction of Crede's method—our statistics will show great discrepancies in the percentage of the blind.

One thing must be wondered at, that with the primary trouble so fearfully frequent ophthalmia neonatorum is not responsible for even a larger percentage of blindness than it is, even according to the highest figures.

DR. ERNEST A. ROBIN, of New Orleans, read a paper on

The Treatment of Ophthalmia Neonatorum.

According to the report of the Committee on Ophthalmia Neonatorum of the American Medical Association, made at its last session in 1908, it was found, after a careful census that

fully 20 per cent of the blind in New York and Massachusetts had become blind before their fifth year, and that fully one-half of these had become blind as a result of ophthalmia neonatorum.

A disease, universally classed as preventable, that can claim such an astounding number of victims and, worst of all, at the very threshold of life, should enlist our renewed attention and command our most earnest efforts for its eradication

To prophylaxis we grant the chief role toward this consummation; but we should bear in mind, however, that ophthalmia neonatorum will sometimes develop even after a thoroughly conscientious application of Crede's method of prevention. It is of utmost importance, therefore, to look for and find a treatment yielding the highest percentage of successful results.

In the treatment of ophthalmia neonatorum one consideration of pre-eminent importance should always be remembered. No matter whether we are dealing with a mild or severe attack, no matter whether the infection be due to the gonococcus or to some other micro-organism, it is a well-known fact that the chief danger to the eye from this disease is through the cornea.

A realizing sense of the enormous value of the protective epithelium of the cornea would lead us at once to use every effort to keep it intact from all damaging or destructive influences throughout the whole course of the disease. Two factors may bring about a breach in this barrier, thus opening up an avenue to infection and ulceration of the cornea. First, the constant contact with the cornea of bacteria and toxin-laden secretions, softening and eroding its epithelium. Second, rough handling of the lids either through ignorance or as a result of the introduction in the conjunctival sac of instruments devised for its thorough cleaning or the use of painful and irritating antiseptics.

A logical plan of treatment, therefore, should consist of two essential principles: 1. The removal of all pus from the conjunctival sac as fast as possible, i. e., as secreted. 2. The agent used should possess antiseptic properties and be at the same time non-irritating, so that its instillation into the eye may be performed, even by unskilled hands, without any meddlesome manipulation of the lids.

At this juncture I wish especially to emphasize the danger of introducing any instrument into the conjunctival sac either for examination of the cornea or for the purpose of facilitating its cleansing out except at the patient's first visit, when it is the surgeon's duty to determine the state of the cornea, and for this purpose a lid retractor generally becomes necessary.

Treacher Collins says that a case of infantile ophthalmia, when first seen should be in its worst stage, and that it begins to improve immediately under treatment. My experience teaches me that this statement is true even when perforation of the cornea has already taken place. If the cornea has not entirely sloughed off, then a part of it may yet be saved—if, however, it is totally lost, then the worst has already happened.

I will outline briefly the treatment followed at the clinic of the Eye, Ear, Nose and Throat Hospital, in charge of Dr. Bruns. We long ago gave up the use of the time-honored boric acid wash. Owing to its acid reaction it is irritating to the cornea and its antiseptic properties, which may well be seriously questioned, are unequal to the task. When we need a cleansing wash we use a 1% solution of baborate of sodium, which is vastly superior to boric acid because of its mild astringent effect and alkaline reaction, which renders it soothing to the inflamed mucous membrane. Our most successful treatment consists in the use of a 10 per cent solution of argyrol instilled with an ordinary dropper into the conjunctival sac every 15 minutes, night and day. The frequency of instillation constitutes the most essential point in this method of treatment. Dr. Bruns has aptly called it the immersion method, for when properly practiced the solution of argyrol is in constant contact with the affected parts. Owing to its greater specific gravity, it displaces the pus and fills the conjunctival sac with an agent possessing both a germicidal and soothing influence on the cornea and mucous membrane.

In a series of careful investigations concerning the bactericidal power of argyrol made by Cragin in 1907, he found that in solutions of 20% and 30% it destroyed the gonococcus in 30 seconds, but found it practically inefficient in streptococcus and staphylococcus infections; but as the gonococcus is the coccus most feared in infantile ophthalmia, the writer felt jus-

tified in advocating its use both as a prophylactic and remedial agent.

We have found from experience that solutions of argyrol of 30% and 50%, while probably better antiseptics, do not give as satisfactory or as prompt results as a weaker solution. This is probably due to the greater viscosity of the stronger solutions, which reduces markedly the valuable diffusibility of the drug. Through the kindness of Dr. C. A. Bahn, who as assistant in Dr. Bruns' clinic had charge of all these cases during the past year, I will present to you some interesting figures. Of the twenty cases presenting themselves, smears were made of the secretions in seventeen cases. Sixteen were reported by the bacteriologist as positive and one as negative.

The treatment consisted in instillations of a 10% solution of argyrol every fifteen minutes until secretion was entirely checked and thereafter applications of nitrate of silver solutions, (gr. i to gr. v to the 3i) daily, until discharged. The secretions were entirely checked in from 6 to 27 days, with an average of $6\frac{1}{2}$ days. The entire treatment was completed in from 18 to 45 days, with an average of 31 days. One case had a cloudy cornea upon admission and was discharged with a slight nebula of cornea. Sixteen cases were discharged cured, three cases left improved and one case never returned.

I think it is well to add that these frequent instillations of argyrol, as a rule, do not have to be kept up longer than 36 to 48 hours, by which time the intervals can be safely lengthened daily. Applications of nitrate of silver should always be made by the surgeon. For the past 5 or 6 years I have not made use of hot or cold applications to the eyes of infants. They do no good and may be harmful.

I have never found it necessary to do canthotomy to relieve tension upon the eye from the swollen parts. Careful manipulation of the lids with the fingers and frequent instillations of argyrol is always followed in twenty-four hours by reduction of the swelling and an improvement in every way.

The tabulation in Dr. Bruns' clinic shows that since 1893 301 cases of ophthalmia have been treated. Since 1903 the immersion plan of treatment with argyrol in 10% solution has been diligently followed. Prior to this the usual treatment in

vogue was used. Out of 301 cases treated, one only was discharged with eyes lost. This unfortunate outcome was the result of gross carelessness on the part of the parents, who not only did not follow treatment at home, but failed to bring the child back to the clinic until the eyes were practically destroyed.

DR. HENRY DICKSON BRUNS, of New Orleans, read a paper entitled

Ophthalmia Neonatorum. Prophylaxis.

The excellent papers on this subject by the gentlemen who have preceded enable me to treat my portion without digression or delay. It is not to be denied, however, that if our profession had been as faithful to its trust as it was in duty bound to be, these papers could hardly have been written except as historical reminiscences. In all the wide world there would scarcely be found a child condemned to perpetual blindness on account of the ravages of this controllable disease. Ten per cent of those who sit in darkness would have escaped their fate. What a total subtracted from the sum of human misery!

Prof. Fuchs of Vienna says: "There is perhaps no other eye disease in which the vigorous carrying out of prophylaxis would afford more gratifying results than in the ophthalmia of the new-born, which might by means of it be made to disappear almost entirely." (Text Book of Ophth., Amer. Ed. of 1908.) The illustrious teacher might well have gone further and have said there is hardly any known disease which can be so well controlled by a prophylaxis at once so simple and so efficient. Our sympathy is more stirred by the utterance of Prof. Dimmer: "Purulent ophthalmia of infancy can, and must be, wiped out of every civilized country."

And what is this prophylaxis? It consists simply in dropping into each eye of every new-born infant one drop of a 2 per cent solution of silver nitrate. During the first bath none of the water—*gift wasser* it has been pointedly called—none of the water in which the body is bathed is let come into contact with the eyelids. With absorbent cotton and clean water the outside of the eyes is bathed; if we suspect infection this should be done as soon as the head is born; then one drop of

2% nitrate of silver is instilled. It is now twenty-eight years since Crede of Leipsic published his discovery and the results of its use in the lying-in asylum under his care, and still to-day, in the most populous parts of our country, 20, 25 per cent or more of the children in the blind asylums and schools owe their fate to ophthalmia neonatorum.

Here in our own city I have seen since taking charge of the eye department of the Eye, Ear, Nose and Throat Hospital, from 1893 to 1908, both inclusive, 301 cases of ophthalmia neonatorum; an average of slightly more than 19 a year (males, 147; females, 154; white, 188; of color, 113). Only one of these cases lost an eye, and this was due to the incorrigible neglect of the mother.

Is this method, then inefficient?

Before the adoption of the Crede method* in the Lying-in Asylum at Leipsic there were 10.8% of cases of ophthalmia among the new-born; after the introduction of the method the number sank to 0.2%. Before the introduction of the prophylactic treatment the disease attacked from 1 to 20% of children in the various lying-in establishments. Since children of the poorer class, who were born outside of institutions and were affected with gonorrhea often were brought under medical treatment either too late or not at all, many of them went blind. Before the introduction of prophylaxis, ophthalmia neonatorum caused more than a tenth of all cases of blindness." (Fuchs, loc. cit.). Before the use of Crede's prophylaxis, among 17,767 births tabulated by 13 observers 9.24% of cases of ophthalmia neonatorum occurred; after the adoption of Crede's method, among 24,724 births tabulated by 31 observers, only 0.655% of cases occurred. To multiply these figures would only tax your patience. Is the method injurious? It is not. After scouring the literature a distinguished writer (Dr. Lucien Howe of Buffalo, N. Y.), who has long given this subject attention, could find but four cases of supposedly injurious action. In only one of these was the evidence clear, and in that one the evil result was confined to "a slow, persistent oozing of blood" from the conjunctiva. But, says Dr. Howe:* "There is every reason to suppose the child was one of those

* Crede's Method for the Prevention of Purulent Ophth., etc., Amer. Ophth. Soc. Transactions, 1897.

individuals with a natural tendency to bleed easily. Indeed, among so many thousands, or perhaps hundreds of thousands, of children thus treated it would be strange if some such bleeders from usually insufficient cause were not met with. It should be remembered, also, that nearly every remedy which has been proposed to take the place of silver nitrate has been followed by disagreeable results; even after the use of sterilized water some irritation, and once at least corneal ulceration, has followed (Hofmeier), probably due as little to the water as the other cases were to the silver nitrate."

To object that the method of Crede is not infallible is to cavil at all things mundane. With the excuse that it is troublesome, I shall not waste your time to deal. But it is certainly painful!

What psychologist to-day so bold as to declare a new-born child capable of feeling pain in any comprehensible sense of the word? And were the pain exquisite even for a few moments, or a few hours, what is that in comparison to life-long blindness?

But the parents object! So do some to the vaccination of their children, or to their injection with anti-diphtheritic serum, but that has not deterred us from the discharge of our duty or proven an insuperable obstacle in the path of progress. That physician must be feeble in his professional convictions, or have but slight hold upon the confidence of his patients, who cannot win them to the acceptance of those great, saving, specific measures which illuminate the field of our endeavor. Were it but intelligently put before them, there are many who would prefer that their child should chance death by smallpox rather than risk a lifetime of blindness. Indeed, as knowledge is diffused there may before long come a time when, should damage result from ophthalmia neonatorum, the attendant may have to face a serious suit for malpractice if no efficient prophylaxis has been employed. Who could conscientiously or authoritatively come to his rescue? Where would the supporting literature be found?

Has no more efficient method been discovered? None. No plan freer from possible objections? Perhaps; a cautious perhaps. When the first draft of this paper was read before a meeting of the Orleans Parish Medical Society it was sug-

gested by a distinguished confrere that as the instillation of the silver solution can only be effective by extinguishing a contagion which has already taken place, a careful asepsis, preventing from the first any contact with the contagion, should prove sufficient. The argument has weight, and no one may decry the importance of asepsis, which should be most carefully practiced by the physician, or under his very eye, in every case of child birth. As a matter of fact, such a method—the careful cleansing of the eyes as soon as the head is born, together with the greatest care to prevent reinfection from the bath water or other source—has given most excellent results. Dr. Snell*, of the Jessop Maternity Hospital, reports that by training their midwives to the practice of such a method, during the last three years, after 2,242 labors, there were among the first 200 infants a few cases of purulent ophthalmia, but among the last 2,000, since the method had been systematically adopted, not a single case occurred. In a high-class obstetrical practice, in charge of one who could and would give to each case before, during and after labor ample and adequate attention, excellent results might be had in this way. But it must be remembered that not all dangerous ophthalmias of the newborn, by any means, are gonococcal and that in examining a vaginal discharge, as well as one from the conjunctiva, a negative finding, or two, is easily had and of but trifling value. "We do not catch fish in every bucket of water taken from the river," nor do we fix and stain these particular fish at each and every attempt. The gonococcus, on the other hand, is no respecter of persons and weak links in the aseptic chain are all too common. The obstetrician pursuing the aseptic plan should be constantly conscious, therefore, that he is accepting great risks, and that in the presence of undoubtedly safer modes he would find it difficult to excuse himself did misfortune befall. In the search for something better than Crede's salt, all of the well-known well-approved antiseptics have been tried and found wanting. In solutions strong enough to be efficient they are too irritating, and weak enough not to irritate they are inefficient. Increasing knowledge but strengthens the belief that to the silver salts we must turn for the most

* Report of Committee on Ophth. Neonat. of the Amer. Pub. Health Assn., *Journal of the Amer. Med. Assn.*, March 13, 1909.

powerful gonococcal poisons. It cannot be denied that one objection lies against Crede's method, the production in a certain number of instances of a simple catarrh of the conjunctiva, the so-called silver catarrh. Whether a percentage of these cases has not been produced by exceeding the precise directions of Crede for the instillation of but a single drop of the solution, we do not know; but in the desire to avoid them many have advocated a reduction in strength of the silver nitrate solution to 1 per cent. Stevenson, in a compilation of 112,584 cases, found that the percentage of ophthalmia is lower with the weaker solutions of silver than with the 2 per cent solution originally recommended by Crede.* On the other hand, among 1,223 (German) cases collected by Howe, there were 2,422 per cent of ophthalmia neonatorum after the use of the 1 per cent, as against 0.655 per cent after the use of the 2 per cent solution in 24,724 cases. Dr. Edwin B. Cragin, who has been putting this matter to the test in his service at the Sloan Maternity Hospital of New York, had a percentage of 3.4, with one eye lost, in 1,000 confinements when the 1 per cent, and only 1.8 per cent, with no losses, when the 2 per cent solution was used.

In the solutions of argyrol, however, we have, perhaps, an agent at once bland and efficient. The experiments of Dr. Cragin* look that way. In 2,000 confinements after which the 10 per cent argyrol solution was used in the eyes of the infants the percentage of cases of ophthalmia was 1.7, with the loss of one eye and the occurrence of two corneal opacities. In 2,000 confinements, when 20% argyrol was used, 2.1+ per cent occurred, but no eyes were lost and no opacities resulted. The bacterial tests showed that the solutions of argyrol were powerless against the streptococcus pyogenes and staphylococcus pyogenes aureus (as others* had shown), "but with the gonococcus, in strengths of 20% and 30%, it was perfectly efficient. So long as a 20% argyrol solution was efficiently bactericidal with the gonococcus in 30 seconds, so long as the gonococcus

* Report of the Committee on Ophth. Neonat. of the Amer. Pub. Health, Assn., *loc. cit.*

* The Prophylactic and Curative Treatment of Ophth. Neonat., etc. By Edwin B. Cragin, M. D. Amer. Jour. of Obstetrics, July, 1907.

"Experimental Study on the Bactericidal Power of Various Silver Preparations. By Dr. G. S. Darby, of Boston; Trans. Amer. Ophth. Soc., 1906, Vol. XI, Part 1. }

was the coccus most feared in the etiology of ophthalmia neonatorum, and so long as the clinical results were practically as good as with the use of 2% nitrate of silver, and better than with the 1% nitrate of silver, and this without the annoyances of silver irritation and staining," Dr. Cragin "felt justified in using and advocating the use of argyrol as a prophylactic against ophthalmia neonatorum."

In the discussion which followed a symposium on this subject in the Orleans Parish Medical Society, one speaker intimated that he had heard that Dr. Cragin had of late abandoned the use of argyrol in his practice, but in a letter to the writer replying to a query of this import, Dr. Cragin says: "I am still using argyrol (20%) in the prophylaxis of ophth. neonat. and have no desire to return to nitrate of silver;" and it is almost two years now since the publication of Dr. Cragin's paper. In using argyrol, however, remember that the solutions must be fresh—not over two weeks old—and while in the light of Dr. Cragin's experiments the chosen strength must be 20%, we must not make the mistake of supposing that because 20% is good stronger solutions will be still better. As you know, I was among the first to use and strongly to advocate the use of argyrol in the treatment of ophthalmia neonatorum, and the much more severe gonorrhœal ophthalmia of the adult.* By that time my experience had already taught me that the stronger solutions soon irritate and, being sticky and dense, do not diffuse themselves over the conjunctiva nor penetrate into the lachrymal passages—which may well constitute a preserve for the coccus—as well as the weaker. Without bacteriological experiments to guide me, I used the 10% solution by what I called the "immersion" method;" that is, by the cautious instillation of the solution every 15 minutes, I sought to prevent injury to the ailing epithelium of the cornea, and to keep the eye free from secretion and the conjunctiva constantly covered with a gonococcicide. This method is still giving us satisfaction, and I cannot see any advantage in the additional use of boracic acid, which, like all acids, is irritating to the eye, its 15-grain saturated solutions beneath contempt as an

* Gonorrhœal Ophthalmia in the Infant and in the Adult. By. Dr. Henry Dickson Bruns.

antiseptic and far less effective in disengaging the pus from the eye than the heavier, neutral argyrol solutions. Now, although this use of argyrol thus chimes in with my hopes, my prejudices and my experience, and I would urge you who have the opportunity to repeat the experiments of Dr. Cragin, nevertheless until they have been repeated on a grand scale we must render against them, in comparison with the long-tried 2% silver nitrate, the Scotch verdict—not proven. Especially do the bacteriological experiments clamor for repetition, and as Dr. Hiram Woods, of Baltimore, has well said, we particularly need comparisons of the prophylactic efficacy of the various silver preparations in the cases of babies born of mothers with known gonorrheal infection.

But in the end it comes back to this: Every child made blind by ophthalmia neonatorum convicts our profession of breach of trust; unless it be one of the very few ruined in spite of prophylaxis and prompt treatment; or unless the birth, and the child immediately after birth, were unattended by a licensed midwife. For midwives are licensed by our examining board and registered with our Board of Health, both under professional control. If our midwives, among whose clientele the majority of cases happen, are derelict or uninstructed we cannot escape the responsibility.

Gentlemen, in 1906 a committee composed of Dr. F. Park Lewis, Chairman; Dr. J. Clifton Edgar and Dr. F. F. Westbrook, was appointed by the A. M. A. "to formulate and make effective the details of a plan that may give uniform legislation and definite instruction to the profession and laity concerning the prevention and treatment of this disease"—ophthalmia neonatorum. This committee reported last year at the Chicago meeting and from each State a member was appointed from the obstetric and ophthalmological sections to co-operate with it. Dr. S. M. D. Clark was appointed by his section and I by mine. We agreed that we could in no way better secure the attention and aid of the Louisiana State Medical Society than by presenting, with the highly appreciated help of our confreres, symposia on this subject before the Orleans Parish Medical and the Louisiana State Medical Societies. We beg, then, to say that the A. M. A. committee on this subject re-

ported as its opinion that the prevalence of ophthalmia neonatorum could best be combatted by:

Registration—

- (a) of births,
- (b) of midwives,
- (c) of physicians;

Education—

- (a) of midwives,
- (b) of mothers,
- (c) of the medical profession;

Preparedness—

- (a) Proper dissemination of prophylactic.

Co-operation.

The committee suggests that these recommendations may be carried out:

By the distribution by health boards of leaflets or circulars of instruction to midwives and mothers; by the preparation and distribution by health boards of ampules or sealed tubes containing the prophylactic, with directions for its use; by insistence by the authorities upon the keeping of proper records concerning this disease in all institutions in which children are born; by the health officers soliciting from all physicians practicing obstetrics of reports—say, semi-annually—of cases occurring in their practice, whether or not a prophylactic was used and the result; by organized and concerted effort throughout the States of the Union.

Some of these recommendations, you perceive, may be carried out by the holding from time to time by all our parish societies of meetings for the discussion of this subject. For the rest, we are fortunate in having in Louisiana a State Board of Health, with subsidiary boards or officers in every parish, city and town, armed with ample authority, I believe, to carry out all these suggestions. The board is now making efforts, we understand, to secure the keeping of better vital statistics; if it will include with these statistics of this readily preventable disease, the first step necessary to its extinction will already have been taken. Our physicians and midwives are not only registered, but examined and licensed, and if midwives, whose practice furnishes the majority of cases, were forced to use

the prophylactic and to report to the proper authority all cases of inflamed eyes in children in their care within six hours of the initial symptoms, under penalty of revocation of license, many a calamity would be spared.

Nearly every one of these blinded children becomes, sooner or later, a charge upon the State, and the State is certainly within its rights in protecting its taxpayers from this additional burden laid upon them by criminal folly or neglect.

Dr. Lucien Howe, of Buffalo—without mention of whose name the history of the fight against ophthalmia neonatorum in the United States cannot be written*—Dr. Howe estimated the minimum cost of 403 victims of this disease to be nearly \$59,000 to the State of New York, and the probable cost over \$110,000 a year. And this the cost in dollars only! Weighing all these things, I venture to suggest for your consideration the following resolutions:—

Whereas the purulent ophthalmia of infancy is the cause of about 10 per cent of all irremediable blindness; and

Whereas experience has shown that the disease can be almost wholly prevented by a harmless and simple prophylaxis, the method of Crede; be it

Resolved, That this society recommends to its members the adoption of this method as a routine practice; be it further

Resolved, That this society respectfully calls upon the State Board of Health to enact such rules and regulations, and to obtain, should any be necessary, such legislation as may lead to the extinguishment of the disease in this State, in this way setting Louisiana in matters of health not only abreast, but in advance of her sister commonwealths.

* It gives me pleasure to acknowledge my indebtedness to his writings for much of the information contained in this paper. See: Crede's Method for the Prevention of Purulent Ophthalmia in Public Institutions, Amer. Ophth. Soc. Transactions, 1897. Report of the Committee on Ophthalmia of Infancy, Transactions of Amer. Ophth. Society, 1908, How the Cost of Purulent Ophthalmia to New York State Might Be Lessened, *Buffalo Med. Journal*, 1898.

Orleans Parish Medical Society Proceedings.

President, DR. B. A. LEDBETTER.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans.

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF MARCH 28, 1910.

DISCUSSION OF DR. WEIL'S PAPER ON LARYNGEAL TUBERCULOSIS.

DR. HENRIQUES: Personally I have had no experience in the treatment of laryngeal tuberculosis. Speaking from an electrotherapeutic standpoint, the great difficulty in treating these cases with X-rays is to secure a tube which will permit the direct application of the rays to the larynx. At present no such tube exists. If the condition is treated through the skin there is great danger of causing a superficial inflammation, which will offset any possible good derived from the X-rays.

High-frequency currents may be of some value in laryngeal tuberculosis on account of their marked nutritional effects.

DR. C. J. MILLER: I would like to ask Drs. Weil and Dupuy if they have ever used acetone in the treatment of this condition?

DR. DUPUY: There is no more pathetic picture than that presented by a laryngeal tubercular patient suffering from dysphagia. For this extreme condition some one is to blame—either the patient or the attending physician. I venture the statement that those cases of marked dysphagia should scarcely ever be seen, for, now that we are in possession of certain means of diagnosing pulmonary and laryngeal tuberculosis, such extensive laryngeal involvement need never occur. It is well to recognize the intra and the extra-laryngeal types of involvement. In the first, most of the trouble may be focussed on the outside—say the arytenoids. Dysphagia is a prominent and early symptom; when the invasion remains within the larynx only, dysphonia is the most marked symptom. The first signal of laryngeal tuberculosis is not always a vocal disturbance. The voice, therefore, is not a true index of what is actually taking

place in the larynx. With slight hoarseness, there may be a marked extra-laryngeal invasion, threatening to destroy life by starvation. To ward off just such a condition is why we should ever be on the alert at the slightest throat trouble in a known tubercular case.

Some twenty-five years ago Sir Morel MacKenzie stated that laryngeal tuberculosis was incurable. This is now controverted by many cures. The most brilliant results, in suitable cases, can be obtained through the intelligent use of formol and lactic acid solutions or the galvano-cautery. We must group our cases, as regards treatment, into those in which the larynx is apparently bearing the brunt of the infection and the lungs only slightly involved. In this instance we must be aggressive toward the larynx. In the other groups we have lungs hopelessly involved, the larynx slightly, in which it would be a barren victory to cure the larynx. A third group—larynx and lungs both extensively involved—marked dysphagia is present. It would be cruel to be aggressive at this stage. Such a distressful condition will never occur if we institute a routine throat examination in all our tubercular patients.

DR. WEIL (in closing): In answer to Dr. Miller's question, I may say that I have had no experience with acetone in this condition. Dr. Granger's suggestion is good, and the ray filtered might pass through the skin all right, but would it do the same in the cartilaginous tissue of the larynx? The cases spoken of by Dr. Durel are pulmonary ones, and not laryngeal, and though pregnancy, in rare cases, may seem to favorably influence the pulmonary type, it is always bad in the laryngeal form. I purposely omitted the technic of making these laryngeal applications, for it would carry me outside the scope of my paper.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

The 1910 A. M. A. Meeting.

It is particularly fortunate for the profession of the South and the Southwest that St. Louis is the place for the 1910 meeting of the A. M. A., accessible to almost every one of the larger cities by straight lines of travel, and none of these too long or too far to travel.

St. Louis offers more than one interest to us besides the attendance upon the scientific sessions of the national body. She is one of the cities in this country with the Latinic traditions—to-day evidenced in the names of many of her people as well as of her streets.

With the growth in population, this sister city of New Orleans has done much to improve her beauty, and, with her commercial advantages, St. Louis has grown into many sorts of importance in the past few years.

The Profession of the South should go to the St. Louis meeting and join with the West in a large representation.

The National Health Department.

The transitory efforts, variously expressed during the past few years, directed at a national health department, now seem to have crystallized into something like shape for action.

Repeatedly the organ of the A. M. A. has discussed and urged some such plan, and committees have struggled for recognition before the National Congress.

A bill is now before Congress to create a Department of Health with a Cabinet officer at its head.

Senator Robert L. Owen, of Oklahoma, has introduced a bill in the United States Senate to organize all existing national health

agencies, with enlarged functions, into a single department to be known as the Department of Health, in charge of the Secretary of Health. This measure is now in committee, hence now is the time to exert pressure upon the two houses of Congress if favorable action is desired.

There is some division of opinion as to whether an independent Department of Health should be insisted upon or whether it is wiser to move for only a Bureau of Health. Still, as the measure has been introduced and has some strength, it seems to us the best policy to support it with all our strength in order to get it through, or at least to get the nearest thing to an independent department that we can.

Our readers are urged to write their Senators and the Congressmen of their district in *favor* of the measure; also to get some of their influential lay friends to do likewise, as its principles are for the welfare of the people.

The profession generally seems satisfied that such a step is desirable if the purpose of preventive medicine is to be fulfilled in this country. The Marine Hospital Service has expanded beyond its original limits, and it looks as if that division of the Government had reached the fullest scope of its intention, real or implied. Many medical men, in and out of print, have argued for a bureau or department of health, in which the conservation of human life might receive the same consideration as do animals, farm products and live stock, and there is reason in such an argument.

We are inclined, however, at this juncture, to throw out the query, Is the medical profession ready for a department of health? This means a centralized supervision of all matters referring to the public health.

A casual review of the recent literature, lay and secular, considering the question of vital statistics, would point to a flagrant neglect on the part of the profession in many States, and notably in the Southern States. The discussion of this has seemed to argue an indifference so far as the profession is concerned; the registration of births, deaths, etc., has not appeared to be important. If this is so general a neglect as the reports would indicate, Congress may be slow to entertain the establishment of a department, in the simplest essentials of which the profession demanding

such has no particular interest. State health officials have found it necessary to call in the aid of the law in order to obtain even meager statistics of births and deaths, and, in many places, the irregularity in such statistics has made them less than worthless.

A Department of Health should regulate quarantine, establish uniform health regulations, food laws, and create sanitary methods of living based upon the study of necessities the world over. Its final purpose must be to study the economics of living so as to prevent disease and to combat the present death rate; but such an institution may not have its incipency until the profession itself shows that it means to make such a department effective and not perfunctory.

The Davis Memorial Fund.

At the approaching meeting of the A. M. A. it is hoped that the committee, of which Dr. Henry O. Marcy is chairman, will be able to report that funds sufficient to build the memorial to Dr. W. S. Davis have been accumulated.

Dr. Davis was the father of the A. M. A. and distinguished among his contemporaries. He departed this life quite a few years ago, and the profession has been derelict in delaying the erection of a suitable memorial to him.

Louisiana should do her share in contributing to this worthy object. All those desiring to give their mite may send same through the JOURNAL, which intends to send its own subscription, and which will have a receipt sent by the chairman of the committee.

Dr. Gordon King.

Again has a bright light among the young leaders of the profession been extinguished.

Suddenly, tragically, came the end, just as he was completing what was to have been anyway his last indulgence in a dangerous sport which furnished him much needed exercise and diversion after his long indoor professional task.

Only thirty-four years of age, he was in charge of the ear, nose and throat department of the Eye, Ear, Nose and Throat Hos-

pital of this city, and professor of that branch in the New Orleans Polyclinic, besides carrying on a large practice in this special line as the associate of his tutor, Dr. A. W. de Roaldes, the pioneer in that line of work here and probably in the South.

Dr. King was generally and sincerely liked. He was eminently gentle and cheerful, yet firm and an earnest as well as an intelligent worker. He was an able operator, a conscientious writer. We miss him much as a valued collaborator, as an esteemed confrère, as a beloved friend.

Abstracts, Extracts and Miscellany.

Department of Internal Medicine.

In Charge of E. M. DUPAQUIER, New Orleans.

PROPHYLAXIS OF EPIDEMIC CEREBROSPINAL MENINGITIS.—Schneider, of the Val-deGrâce (Military Hospital, Paris), has practised in fifty-four healthy persons, carriers of the meningococcus, the procedure recommended by Vincent and Bellot for the disinfection of the pharynx, viz.: swabbing freely the nasopharynx with 1 part of iodine to 30 of glycerin, gargling with 1 part of hydrogen peroxid to 10 of water, inhaling vapors from a mixture of iodine guaiacol, thymol and alcohol at 60°.

Disinfection is rapid enough to allow the lessening, in a marked manner, of the duration of the isolation of meningococcus carriers. In general, four days suffice to disinfect the naso-pharynx. (*La Médecine Moderne*, 19 Mars, 1910.) Incidentally, we may remark that for many years the French Army Surgeons, who have such a grand opportunity for close and scientific observation, have published their view as to the prophylaxis of another epidemic disease, chiefly among troops, namely, scarlatina. Their view is that the infectious and contagious period of scarlatina is *only* the initial one, that of the naso-pharynx involvement, and that the isolation of convalescents, because of peeling, is entirely *rococo*, meaning figuratively, antiquated, poor, delusive and illusory.

Of course, here one cannot, as in the case of the meningococcus, show that the germ of scarlatina, exists or exists not, persists or persists not, in the naso-pharynx, since we do not know anything positive about the scarlatina germ. The fact remains that they check the spread of the epidemic among the troops by taking particular care of the well subject's naso-pharynx and isolating at once every suspicious naso-pharynx case. No one should blame the overcautious to regard *desquamation* as infective, yet, as it is hard to prove or disprove, very well. Be cautious, though we fear this dread of the scarlatina peelings comes from a fatal intellectual process in clinics. We mean the reasoning, by analogy, in this way it is thus in smallpox, it must be so in scarlatina and measles, too. Now, this is *rococo*, also.

Granted that peelings are infective, because the great master said so years ago, is it, then, necessary to be overcautious to the extreme in quarantining beyond the stage of peelings convalescents who need open air to recuperate. Is not this a delusion of an anti-medical mind? Is not this arbitrary, and, therefore, unprogressive? Remember the sad time when we unmercifully quarantined cases of yellow fever, and to-day we know that the mosquito is infectable only during the three initial days. It is not so much the fingers the school teachers should be ordered to examine at the morning rally and roll-call, but the throat. Or, watch the nose, watch the voice, and ask the child if he has a cold, and the child is candid, as a rule; he won't lie then. Tell the teacher to send back home any child that has anything wrong with his nose and throat.

We know of a number of children, some close to us by kinship, who were infected at school, not by peelings on the hands, but by so-called colds, invasion of scarlatina and measles, sitting next to them. We feel so sure of this that we might say, to express our speculative views in figures, as a matter of discussion, of course, that one naso-pharynx infects twenty where one peeling infects naught. It may seem radical, but there is a lot of backing to support this view. So, watch the naso-pharynx and disinfect it! And do not set a fixed number of days of quarantine applicable to all cases, unmercifully, when every and each case must be studied and treated on its own merits. That is practice!

E. M. D.

Department of Therapeutics and Pharmacology.

In Charge of DR. J. A. STORCK and DR. J. T. HALSEY, New Orleans.

EXPERIMENTS RELATING TO THE BACTERIAL CONTENT OF THE FECES, WITH SOME RESEARCHES ON THE VALUE OF CERTAIN INTESTINAL ANTISEPTICS.—Friedenwald and Leitz (*The American Journal of the Medical Sciences*, November, 1909): "From these observations we believe we are justified in concluding:

"1. Regulation of diet, together with the evacuation of the bowels, is the most effectual method that we have at hand of reducing the excessively high bacterial content of the intestine.

"2. Beta-naphthol and bismuth salicylate appear to be our most effectual intestinal antiseptic drugs in normal individuals, while asparin and ichthalbin effect slight reduction, and salol gives no results whatever.

"3. The results produced by means of intestinal antiseptics in patients suffering with gastro-intestinal disturbances do not seem to be marked, whereas the best results are obtained by regulation of the diet."

J. A. S.

Department of Nervous and Mental Diseases.

In Charge of DRs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

SUMMARY OF AN EPIDEMIC OF 135 CASES OF ACUTE ANTERIOR POLIOMYELITIS OCCURRING IN VICTORIA IN 1908 (H. DOUGLAS STEPHENS, *Intercolonial Med. Journ. of Australia*, Vol. 13, p. 573.)—Extensive epidemics of this disease have from time to time been reported in different parts of the world, the latest being those in Queensland in 1905, in Norway and Sweden in 1906, and in New York in 1907. In this paper, an interesting summary is given of 135 cases observed during the earlier half of last year in Victoria (Australia).

Most of the cases occurred in the densely populated parts of Melbourne and in small houses, but the hygienic conditions were not very bad. No relationship was observed to undue prevalence

or absence of any other disease, nor was any similar affection noticed among the lower animals. The epidemic occurred chiefly in April, May and June (the Australian autumn), and it followed an unusually dry summer, in which there had been great scarcity of water. The disease seemed to be contagious in a very mild degree, a family predisposition was sometimes noticed, and recurrence or recrudescence was occasionally observed in the same child. Dr. Stephens believes that the incubation period is between three and sixteen days in duration and that the stage of invasion may vary from zero to a week, but is usually from twenty-four to seventy-two hours.

The bacteriological examination of the cases was somewhat hampered by want of adequate appliances. No organism was found that could be proved to be of etiological importance; some interesting observations, however, were made. Lumbar puncture was done in twenty-six recent cases. In most of these, a lymphocytosis was found along with some polynuclear cells, but in some instances there were no cellular elements at all. From seven of the cases cocci were grown; and similar cocci were seen in stained films of the centrifuged fluid. These organisms resembled the faintly-staining diplococci which Geirswold described in the Norwegian epidemic.

In the great majority of the cases, the clinical picture was that associated with ordinary anterior poliomyelitis. In a few days, however, the symptoms indicated the presence of polioencephalitis. In some of these, the cells of the cerebral cortex seemed to be affected; in others, those of the basal ganglia. The cranial nerves affected were the third, sixth, seventh and twelfth, and possibly in one case the spinal accessory. In one instance, the cerebellum appeared to be the part implicated. Sometimes the paralysis was widespread, and a condition existed analogous to Landry's paralysis.

In nearly every case, there was some premonitory fever; this was rarely above 101.5° F., and once it lasted a fortnight. Usually, the fever subsided before the paralysis appeared. General irritability, restlessness, drowsiness, twitching, during sleep, and even delirium, were observed during the pyrexia. Sometimes convulsions ushered in the attack, and slight passing vomiting, or slight cough, were common initial symptoms. Nasopharyngeal symptoms

were also common, but bacteriological examination of the nasopharynx, in a few cases, gave no positive results. Pain, generally accompanied by tenderness, was often met with, and sometimes lasted for weeks, or even months. Occasionally, general dulling of the sensation, or perhaps paræsthesiæ or thermalgesia were present. Constipation was very common and persistent. It seemed to be due often to a hypnotic condition of the rectum and sphincters. Diarrhea was rare, and incontinence of feces was never observed. Dysuria and retention of urine were often met with, and in one case incontinence. The urinary symptoms were usually recovered from within a week. Vasomotor disturbances (chilliness and slight edema) were found in varying degrees in otherwise similar cases. In the cases where vasomotor symptoms were severe, the muscular wasting was generally very great. Generally, though not always, those cases did badly. Most of the children affected had previously been in good health. The death rate of the epidemic was approximately 41½%.

Dr. Stephens' pathological examinations confirmed the results obtained by Harbitz and Scheele in the Norwegian epidemic, who found patchy leptomeningitis, especially on the front of the cord in the neighborhood of the deeper lesions. The engorgement of the small vessels and absence of the large cells in the anterior cornua were regarded as probably secondary to the meningeal lesion. Sections stained for micro-organisms gave no result. VAN W.

THE THERAPEUTIC USE OF BROMIDES UPON AN EXPERIMENTAL BASIS.—Wyss (*Med. Klin.*, 1908, xlvii, 1794) has performed experiments on animals, producing serious symptoms by the administration of bromides. The animals develop ataxia, progressing to fatal paresis. He explains this train of symptoms, which are ordinarily regarded as bromide poisoning, by a chlorine deficiency. It is most interesting to note that it was possible to save these animals by the injection of sodium chloride. They recuperated entirely in twenty-four hours, with no sign of their previous serious condition. He believes that continuous administration of the bromides causes a considerable retention of bromine ions in the blood. Consequently, sodium chloride is excreted in order to prevent the concentration of salts in the blood. The deficiency of the chloride leads to serious consequences, which may be relieved by

the injection of normal saline solution. He applies his findings to the treatment of epileptics in the clinic. This is accomplished by the administration of bromides and the simultaneous reduction of salt in the food. Salt is absolutely prohibited, however, only in urgent cases, and then only for a short time. By this method the effect of the bromides is more rapidly obtained, and less amounts are required for efficient therapeutic results.

VAN W.

Miscellany.

SCARLATINAL MENINGITIS.—A. E. Frost (*Intercol. Med. Jour. of Australasia*, 1908, p. 690) reports the case of a girl, aged 3 years, in the second week of scarlet fever, who developed a squint, twitching of the forehead and retraction of the head. Other signs of meningitis developed. Nystagmus and double optic neuritis were well marked. Examination of the urine and the ears was negative. Recovery took place. Lumbar puncture does not seem to have been performed.

A. Gouet and R. Bénard (*Bull. et mêm. de la soc. med. des Hop. de Paris*, 1908, p. 853) and Lermoyez (*ibid.*, p. 867) report a girl, aged 14, in convalescence from a mild attack of scarlet fever, who developed secondary adenitis, nephritis and double otitis media. Vomiting, headache, Koenig's sign and delirium ensued, followed by strabismus, nystagmus and coma. Temperature 107.6°. Death occurred in the ninth week from the onset of scarlet fever. Lumbar puncture performed six days before death gave issue to a turbid fluid under hypertension containing 81 per cent. of polymorphs and 19 per cent. of mononuclears, with intra- and extra-cellular streptococci. 10 c. c. of electrargol were injected after lumbar puncture the next day, and three days later the cerebro-spinal fluid was more turbid. The polymorphs were now 55 per cent. and the mononuclears 45 per cent. The autopsy showed suppurative cerebro-spinal meningitis. No direct propagation between the middle ear and the meninges could be found.

Suppurative meningitis is a rare complication of scarlet fever. It may occur in the second week, but usually does not develop till later. The clinical picture may be complete or be reduced to a

progressive coma. The duration may range from forty-eight hours to sixteen days. In the diagnosis, uremia must be excluded. The lesions may be circumscribed or diffuse.

Streptococci are usually the causative organisms, as is the rule in the secondary suppurations of scarlet fever, but sometimes staphylococci and pneumococci are found. In the discussion Lermoyez insisted on the invariably fatal issue of otogenic meningitis of streptococcal origin.

VAN W.

STREPTOCOCCAL CEREBRO-SPINAL MENINGITIS IN SCARLET FEVER.—(Teissier, Boudon, and Duvoir, *Bull. et. mem. de la soc. med. des Hop. de Paris*, 1908, p. 868. A. Netter, *ibid.*, 1909, p. 11.)

A man, aged 20, on the eighteenth day of a mild attack of scarlet fever, showed the multiple symptoms of secondary infection not infrequently observed in convalescence, viz., sore throat, rheumatoid pains, gastro-intestinal disturbance, oscillating pyrexia, and rapid pulse. After ten days' duration these symptoms were replaced by signs of meningeal localisation. Lumbar puncture gave issue to a turbid fluid containing numerous streptococci and polymorphs, with a few mononuclears. Death occurred, preceded by left-sided epileptiform, convulsions and hemiplegia. At the autopsy, the cerebrospinal meninges were congested. A purulent exudate extended from the convexity of the right cerebral hemisphere to the base of the brain. The cranial bones, especially the ethmoid and petrous portion of the temporal, were intact. In this case, the streptococci were carried to the meninges by the blood-stream, instead of penetrating in the usual way through the petrous portion of the temporal or the ethmoid. There are only seven other cases in literature of primary suppurative meningitis in scarlet fever, most of which occurred in children. Netter is not so pessimistic as Lermoyez in his prognosis of streptococcal otogenic meningitis. Out of eight such cases, he had one recovery, and in three cases he was able to prolong life appreciably by lumbar puncture. The successful case was that of a girl, aged 7 years, in whom meningitis was secondary to double otitis following measles. A purulent fluid containing numerous streptococci was obtained by lumbar puncture. Recovery was complete, and the child, when seen several years later, showed no sequelæ.

VAN W.

A STUDY OF OZENA.—Dr. Leopold de Ponthiere has given out a publication on this subject, in which he declares his belief that

ozena is due to the cocco-bacillus of Perez and that the disease is not only transmissible from man to man, but also from the dog to man, since this germ is found almost constantly in the canine.

Pathologically, he considers the disease to be a diffuse sclerosis of the pituitary membrane, probably of epithelial origin—the result of the local activity of the Perez germ.

The author further considers the submucous injection of paraffin to be the most rational and effective treatment. McSHANE.

TREATMENT OF DIABETIC GANGRENE WITH HOT AIR.—Dr. Richard presented to the *Société de Chirurgie* five cases of diabetic gangrene, in which the application of hot air gave interesting results. The first case was a man of 46 passing 127 grams of sugar and $4\frac{1}{2}$ grams of albumen a day. There was distinct gangrene of the first and second toes of the left foot. The patient was treated with hot air. The result was very remarkable: both toes were saved; the tissues were supple and vitalized. The second case was a man of 66 passing 166 grams of sugar and $2\frac{1}{2}$ grams of albumen daily. One gangrenous had been amputated. When the gangrene recurred, hot air was used, and with good result. Equally good results were obtained in three other cases treated by MM. Vignat and Muller.

When we reflect that the results of surgical intervention in diabetic gangrene are often deceptive, we cannot fail to appreciate the good effects of the application of hot air in these cases.

The method consists in the employment of an electrical resistance apparatus, capable of heating air from sixty degrees to seven hundred degrees. At the first application, superheated air is used (from 600 to 700 degrees C.), which sterilizes the tissues by calcining, or carbonizing, them. At the second application a series of hot air douches is employed (at sixty degrees C.), which epidermize the tissues and secure perfect cicatrization.—*Gazette des Hopitaux*.

McSHANE.

Louisiana State Medical Society Notes.

In Charge of Dr. E. M. HUMMEL, Secretary, New Orleans.

THIRTY-FIRST ANNUAL MEETING, MAY 3-5, 1910.

PRELIMINARY PROGRAM.

SECTION ON OPHTHALMOLOGY.—Chairman: DR. H. N. BLUM, New Orleans.

“A Few Things in Ophthalmology Which Every General Practitioner Should Know,” by Dr. H. N. Blum, New Orleans.

“The Ciliary Muscle and Accommodation,” by Dr. T. J. Dimetry, New Orleans.

“Three Cases of Chancre of the Eye,” by Dr. E. A. Robin, New Orleans.

SECTION ON PRACTICE OF MEDICINE.—Chairman: DR. GEORGE S. BEL, New Orleans.

SYMPOSIUM ON DYSENTERY.

1. “A Brief Talk on Dysentery and Report of Cases,” by Dr. George S. Bel, New Orleans.

2. “The Etiology and Pathology of Dysentery,” by Drs. C. W. Duval and Frazer B. Gurd, New Orleans.

3. “Symptoms and Diagnosis of Dysentery,” by Dr. J. E. Knighton, Shreveport.

4. “Treatment of Dysentery,” by Dr. Sidney K. Simon, New Orleans.

SYMPOSIUM ON UNCINARIASIS.

1. “Distribution of Hookworm Throughout Louisiana,” by Dr. Allan Eustis, Abbeville.

2. “Symptoms and Diagnosis of Hookworm,” by Dr. C. C. Bass, New Orleans.

3. “Anchylostomiasis and the Penetration of the Larvae of the Uncinariasis Duodenalis Through the Human Skin,” by Dr. A. Delcourt, Sr., Houma.

4. “Prophylaxis of Hookworm,” by Dr. D. Harvey Dillon, New Orleans.

5. "Treatment of Hookworm," by Dr. W. E. Sistrunk, Lake Charles.

"The Relations of Corn Products to Pellagra; Some Observations at the Louisiana Hospital for the Insane, Pineville, La.," by Dr. J. N. Thomas, Superintendent.

"Auto-Serotherapy; Reports of Cases," by Dr. Isaac Ivan Lemann, New Orleans.

"Aerophagy; Its Forms and Treatment," by Dr. F. E. Lamothe, New Orleans.

"Cardiac Displacement; Report of Cases," by Dr. A. E. Fossier, New Orleans.

"Vital Statistics," by Dr. Cressy L. Wilbur, Washington, D. C.

"The Rôle of the Copper Salts in the Treatment of Amebic Colitis," by Dr. J. A. Storek, New Orleans.

"The Use of Tuberculin in the Treatment of Tuberculosis," by Dr. E. L. McGehee, Sr., New Orleans.

SECTION ON SURGERY AND ANATOMY.—Chairman: DR. CARROLL W. ALLEN, New Orleans.

"Gradual Occlusion and Division of Aorta; An Experimental Study," by Dr. Carroll W. Allen, New Orleans.

"A Case of Thoracic Aneurism, Treated by Occlusion of the Common Carotid and Sub-Clavicular Arteries with Aluminum Bands," by Dr. Isidore Cohn, New Orleans.

"Gunshot Wounds of the Abdomen," by Dr. Cunningham Wilson, Birmingham, Ala.

"A Plea for the Operative Treatment of Fractures," by Drs. F. W. Parham and E. Denegre Martin.

"Contribution to the Study of Spinal Analgesia, With Report of 1,227 Cases," by Dr. S. P. Delaup, New Orleans.

"The Surgery of the Hypophysis Cerebri," by Dr. Hermann B. Gessner, New Orleans.

"Injuries of the Brain," by Dr. Louis Abramson, Shreveport.

"Drainage After Abdominal Operations," by Dr. Randell Hunt, Shreveport.

"Exhibition of the Author's Universal X-Ray Frame," by Dr. Amédée Granger, New Orleans.

"Diagnosis and Treatment of Sacro-Iliac Disease," by Dr. P. A. McIlhenny, New Orleans.

Clinical exhibits by the Tulane surgical staff, consisting of exhibits of cases by Drs. Gessner, Souchon, Perkins, Smyth, Maes, and an operative demonstration of Intra-Thoracic Surgery, by Dr. Allen.

SECTION ON NERVOUS AND MENTAL DISEASES.—Chairman: DR. L. L. CAZENAVETTE, New Orleans.

“Post-Diphtheritic Paralysis,” by Dr. L. L. Cazenavette.

“Some Notes on the Treatment of Nervous Syphilis by Mercurial Inhalations,” by Dr. Salvatore Schiro, New Orleans.

“Neuralgic Pain in the Distribution of Nerves Pressed Upon by Inflammatory Exudate and Scar Tissue,” by Dr. E. M. Hummel, New Orleans.

SECTION ON OBSTETRICS AND GYNECOLOGY.—Chairman: DR. GORDON HOLCOMBE, Lake Charles.

“The Use of the Cystoscope in Differential Diagnosis,” by Dr. Gordon Holcombe, Lake Charles.

“Some Problems in Obstetrics,” by Dr. E. M. Ellis, Crowley.

“The Advisability of Immediate Repair of the Cervix After Delivery,” by Dr. P. B. Salatich, New Orleans.

“Diseases of Pregnancy,” by Dr. O. W. Cosby, Monroe.

(a) “Report of a Most Extensive Vesico-Vaginal Fistula, With Destruction of the Urethral Canal,” (b) “Exhibit of a Reconstructed Fetal Skeleton Spontaneously Cast Off From an Ectopic Gestation,” by Dr. S. M. D. Clark, New Orleans.

“When is Gonorrhea in Women Cured? Report of a case,” by Dr. W. B. Chamberlin, New Orleans.

“The Importance of Early Recognition of Malignant Uterine Disease,” by Dr. H. Guy Riche, Chamberlin.

“Ligation of Thrombosed Pelvic Veins in the Treatment of Puerperal Pyemia; Report of a Case,” by Dr. C. Jeff. Miller, New Orleans.

“Report of the Removal of a Ninety-five Pound Fibroid of the Uterus,” by Dr. H. S. Cocram, New Orleans.

SECTION ON DISEASES OF CHILDREN.—Chairman: DR. R. P. JONES, Clinton.

“The Stools in Infancy,” by Dr. John Lovett Morse, Boston, Mass.

“Tuberculosis in Children,” by Dr. W. B. Singletary, Wilson.

"Nephritis in Children," by Dr. E. D. Fenner, New Orleans.

"Diphtheria in Children," by Dr. E. M. Toler, Woodland.

"A Study of the Blood in Certain Acute Infectious Diseases of Children, and the Prognostic Value Thereof," by Dr. J. J. Robert, Baton Rouge.

"Pyelitis in Infancy," by Dr. W. W. Butterworth, New Orleans.

"Treatment on Chorea," by Dr. L. R. DeBuys, New Orleans.

SECTION ON PATHOLOGY AND PHYSIOLOGY.—Chairman: DR. C. W. DUVAL, New Orleans.

"A Histological Study of the Skin Lesions in Pellagra," by Dr. Frazer B. Gurd, New Orleans.

"Influence of Various Gases on the Action of Ferments," by Dr. by Dr. Philip Frank, New Orleans.

"Acute Multiple Arthritis Due to a Hitherto Undescribed Coccus," by Dr. W. H. Harris, New Orleans.

"Function of the Nucleus," by Dr. Gustav Mann, New Orleans.

"Some Observations on the Rise in Blood Pressure in Anaphylaxis," by Dr. Ralph Hopkins, New Orleans.

SECTION ON CUTANEOUS MEDICINE AND SURGERY.—Chairman: DR. RALPH HOPKINS, New Orleans.

SECTION ON HYGIENE AND SANITARY SCIENCE.—Chairman: DR. I. J. NEWTON, Monroe.

"Vaccination," by Dr. B. A. Ledbetter, New Orleans.

SECTION ON LARYNGOLOGY, OTOTOLOGY AND RHINOLOGY.

"Vocal Rest; Formol and Galvano-Cautery in Laryngeal Tuberculosis," by Dr. Homer Dupuy, New Orleans.

"On a New Method of Local Anesthesia for Tonsillotomy," by Dr. Arthur I. Weil, New Orleans.

"The Mechano-Therapy of the Ear and Upper Air Passages," by Dr. Otto Joachim, New Orleans.

IMPORTANT ANNOUNCEMENT.

Besides the regular program presented above, the Arrangements Committee announces a series of clinics, operations and laboratory demonstrations from April 26 to May 2, before the meeting, and

from May 6 to May 10, after the meeting is over. The medical and surgical staffs of the Charity Hospital, the Eye, Ear, Nose and Throat Hospital, and of the Touro Infirmary will officiate at the clinic demonstrations, and the Faculty of the Tulane University of Louisiana will offer the laboratory exhibits at the Richardson Memorial, Tulane campus, and at the Hutchinson Memorial on Canal street. Additional demonstrations will be given at the New Orleans Polyclinic, Tulane avenue.

IMPORTANT NOTICE TO DELEGATES.—The attention of delegates to the 1910 meeting of the Louisiana State Medical Society is called to the fact that the first meeting of the House of Delegates will be held at Hutchinson Memorial, Canal and Villere streets, on Monday, May 2, at 3:30 p. m. This is in accordance with the ruling of the Society, adopted at the last meeting, that hereafter the first meeting of the House of Delegates be held on the day preceding the opening of the general session.

PARISH SOCIETY MEETING.—MEETING OF THE EAST FELICIANA PARISH MEDICAL SOCIETY.—By invitation of Dr. Clarence Pierson, Superintendent, the regular meeting of the above Society was held at the Insane Asylum at Jackson on April 16. This was probably the best as well as the most interesting meeting this thriving Society has ever held. Interesting, because it afforded the members an opportunity to personally inspect this well-kept institution, and the best in point of attendance, fourteen regular members being present, as well as Dr. Chas. McVea, President of the State Society; Dr. J. J. Robert, of East Baton Rouge, and Drs. Thos. Spec Jones and Blackshear, of St. Francisville. Dr. John K. Griffith, of the asylum staff, read a paper on Pellagra, the interest in which was intensified by showing quite a clinic of patients, exhibiting the disease in all its stages. This being the time for election of officers for the ensuing year, the following were elected: President, Dr. J. W. Lea, Jackson; Vice-President, Dr. W. F. Haganian, Norwood; Secretary-Treasurer, Dr. R. P. Jones, Clinton; Delegate to the State Society, Dr. W. B. Singletary, of Wilson. After the regular program had been finished the members were shown over the entire institution by Superintendent Pierson and

his staff, Drs. Griffith and Thetford. The hospital, dressing rooms, treatment rooms, baths, even the dairy and live-stock departments, were inspected and shown in the greatest detail, much to the pleasure of those present. After a most bounteous lunch served in the dining-room, the Society passed resolutions thanking Dr. and Mrs. Pierson for their kind hospitality and adjourned to meet in Clinton, June 1.

THE GRANT PARISH MEDICAL SOCIETY met March 30, at the court-house, with the following doctors present: Drs. Harrison, Goode, Fletcher, Gray, Morat, Blackwood, Kelly and Roberts. Quite an interesting paper was read by Dr. Gray on Summer Complaints, and was freely discussed by the Society. The following officers were elected for the year 1910: Dr. Philip Goode, President; Dr. W. A. Fletcher, Vice-President; Dr. E. B. Gray, Treasurer; Dr. J. Luther Kelly, Secretary. Dr. Fletcher was elected to represent the Society at the May meeting of the Louisiana State Medical Society.

ST. LANDRY.—The annual meeting of the St. Landry Parish Medical Society, held in Opelousas, April 12, was a signal success, both from a scientific and social standpoint. The executive session was held in the afternoon, and the public session in the evening. Among the principal speakers were Drs. E. Denegre Martin, of New Orleans; Dr. Chas. McVea, President of the State Medical Society, and Dr. Fred J. Mayer, the noted sanitarian. Interesting papers were read by Drs. Paul Foster, G. W. Martin and E. Thompson. The following were elected officers of the Society: Dr. Paul Foster, President; Dr. J. C. Vidrine, First Vice-President; Dr. G. W. Martin, Second Vice-President; Dr. L. Lazaro, Secretary; Dr. W. R. Boudreau, Treasurer. Delegates to the House of Delegates of the State Medical Society were elected as follows: Drs. G. W. Martin and H. S. Josephs; alternates, Drs. G. W. Hawkins and L. Lazaro. The members of the St. Landry Medical Society in attendance were: Drs. O. P. Daly, H. S. Joseph, E. Thompson, Isaac F. Littell, Theo. Littell, B. A. Littell, Egan S. Barry, H. Vidrine, Paul Foster, A. C. Dana, Fred Mayer, Rudolph Mayer, E. Lafleur, Ardoin W. Boudreau, G. W. Martin, G. Hawkins, L. Lazaro, R. M. Littell. The social function, in the shape of a banquet, was held at the Lacombe Hotel that night

after the evening session, and, as usual, was a memorable affair. Members of the Society, invited guests, wives and sweethearts, sat around the festive board and enjoyed themselves.

Medical News Items.

FLORIDA MEDICAL ASSOCIATION.—This Association met April 6, 7 and 8 at Jacksonville.

THE MISSISSIPPI STATE MEDICAL ASSOCIATION met at Oxford, April 12, 13 and 14, under the presidency of Dr. D. W. Jones, of Brookhaven. Among the visitors at the meeting were Drs. C. W. Stiles and C. L. Wilbur, of Washington, D. C., and Drs. C. C. Bass and Isadore Dyer, of New Orleans.

WASHINGTON MEMORIAL BUILDING.—The American Society for the Advancement of Science have projected the erection of a handsome building in Washington to be used as the home of this Society and as a place for the gatherings of national scientific bodies. The plan proposes that the building shall be established through popular subscription among scientific men.

PEACE VERSUS WAR.—The Peace Society, of the City of New York, has issued a graphic circular showing the cost of battleship and armament in the United States as compared with the possibilities which could be attained by the use of the same money in peaceful objects. Copies of the publication may be had *gratis* by addressing the Society, at No. 507 Fifth avenue, New York.

THE FIFTH INTERNATIONAL CONGRESS OF OBSTETRICS AND GYNECOLOGY will meet in September (22-28) this year at St. Petersburg. All interested should write to the Secretary, Dr. P. Sadorsky, Perspective de Newsky, 90, St. Petersburg.

THE UNITED STATES CIVIL SERVICE EXAMINATION.—The United States Civil Service Commission announces an examination on June 15, 1910, to secure eligibles for two vacancies in the position of medical interne (male), Government Hospital for the Insane, Washington, D. C., at \$600 per annum each with maintenance, and vacancies requiring similar qualifications as they may occur

in that hospital, unless it shall be decided, in the interests of the service, to fill either or both of the vacancies by reinstatement, transfer or promotion. From the grade of medical interne the hospital makes promotions to the higher positions in the medical staff as vacancies occur. As considerable difficulty has been experienced in filling vacancies in the position of medical interne in the Hospital Service during the past several years, owing to the limited number of eligibles available, qualified persons are urged to enter this examination.

THE FORTY-SECOND MEETING OF THE STATE MEDICAL ASSOCIATION OF TEXAS will be held in Dallas, May 10-12.

THE LOUISIANA BOARD OF MEDICAL EXAMINERS will meet in New Orleans, May 19-20.

PURE MILK SOCIETY ORGANIZED.—At an enthusiastic meeting, on April 19, the New Orleans Pure Milk Society was organized with the following officers: Dr. W. W. Butterworth, President; Dr. I. I. Lemann, Vice-President; Robert H. Polack, Secretary and Treasurer. These, with the following, constitute the Executive Committee: Samuel W. Weiss, Harry Howard, Dr. L. G. LeBeuf, Dr. King Logan and Dr. J. T. Halsey. The Board of Directors is composed of thirty representative business and professional men. The object of the association is to look after the pure milk supply of the city. The society has the moral support of the Orleans Parish Medical Society and the City and State Boards of Health. It is hoped that the public will respond to the request for financial aid in the fight for pure, clean milk.

LEPROSY IN JAPAN.—According to official reports, there are in five leper hospitals in Japan.

CHARITY HOSPITAL AUTO AMBULANCE.—The auto ambulance presented to the Charity Hospital by an unknown donor, through Rev. Mr. Edbrooke, arrived from New York on the steamship Momus, and has been put into use.

TOURO INTERNES NAMED.—As a result of the competitive examination recently held, three internes will enter service at the Touro Infirmary on July 1. The successful candidates are: Marcel J. DeMahy, of St. Martinsville, La.; H. Tate Moore, of Bolivar,

Tenn.; R. Bruce Wallace, of Natchitoches La. Beginning July 1 the Touro Infirmary will add another department to its service, that of non-staff or visiting doctors. Ten internes will be required for this service, which covers a period of two years.

RECOMMENDATIONS FOR RESIDENT STUDENTS AT THE CHARITY HOSPITAL.—The committee passing upon the examination papers of medical students desiring a training at the Charity Hospital have recommended to the Board of Administrators the appointment of the following as resident students for the two years' course: J. A. Maxwell, J. I. Peters, S. C. Jamison, S. C. Christian, L. F. Beridon, L. A. Fortier, H. E. Nelson, P. B. Harrison, H. L. Staring, J. D. David, W. L. Childs, R. R. Ross; also the following externe students, who work in the clinics: Emile Block, Walter Garvey, J. P. Dignan, A. D. Palmisano, W. O. Williamson, E. A. Bertucci, P. Graffignino, David Adiger, F. P. Danna, A. W. Strauss, W. S. Hamilton, Jr., J. Signorelli and A. Jacobs. The students graduating from the course at the Charity Hospital this year, all Tulane students, are: Messrs. Green, Dawson, Kory, Williamson, Keller, Moers, Baylis, Daly, Nix, Hayes, Mitchell and Gill.

TROPICAL INSPECTION RE-ESTABLISHED IN NEW ORLEANS.—Surgeon J. H. White, of the U. S. P. H. and M. H. Service, has been authorized to re-establish the sanitary inspection service which was discontinued here last November. The physicians selected for this service by Dr. White are: Drs. J. Hope Lamb and Henry A. Veazie, who were engaged in this work when it was suspended last year. It was demonstrated clearly that, as a precautionary measure, this sanitary inspection service is a necessity.

UNDERGRADUATE MEDICAL RESEARCH CLUB OF TULANE UNIVERSITY OF LOUISIANA.—The Medical Department students of Tulane University have organized a Research Club. The primary object of this club is individual investigation into the history and treatment of those diseases which now occupy the attention of medical science. Mr. Waldemar Metz was elected President; J. W. Faulk, Vice-President; Mr. Moody, Secretary and Treasurer, and Mr. Rigney D'Amnry, Sergeant-at-Arms.

DOCTORS' REPEAL LICENSE BILL DEFEATED.—The bill to repeal license on doctors failed to pass the Virginia Legislature. There

are only four States that impose a tax and Louisiana is one of them.

PERSONALS.—The Medical Society of the State of New York will give a reception on May 6 at the New York Academy of Medicine to celebrate the eightieth birthday of Dr. Abraham Jacobi.

Dr. A. R. Braun, of Natchitoches, La., suffered a loss of \$1,200 by fire.

Dr. D. K. Texada, of Boyce, La., was elected Mayor of that town.

Dr. W. L. Grace has been elected President of the Iberville Parish Medical Society.

Dr. A. W. de Roaldes announces that he has taken Dr. Oscar Dowling into partnership. Dr. Dowling is too well and favorably known in New Orleans to need further commentary.

Dr. W. W. Butterworth has been recently elected a director in the American Association for the Study and Prevention of Infant Mortality.

Dr. Isadore Dyer has recently been elected a member of the Advisory Council of the Simplified Spelling Board.

Drs. W. W. Butterworth and Hermann B. Gessner were the guests of the Attakapas Clinical Society at its meeting in Lake Charles on April 13. Dr. Butterworth addressed the Society on the "Importance of the Examination of Urine in Infants and Children." Dr. Gessner gave a demonstration of blood transfusion on the lower animal.

Dr. E. Denegre Martin, of New Orleans, and Dr. McVea, President of the Louisiana State Medical Society, delivered interesting lectures before the St. Landry Parish Medical Society at Opelousas.

At a meeting held at the Insane Asylum at Jackson, La., on April 6, Dr. E. C. McKowen was expelled from the East Feliciana Parish Medical Society. Dr. McKowen was charged with the murder of E. K. Judson, an inmate of the Insane Asylum.

REMOVALS.—Dr. E. deNux, from Cottonport, La., to Echo.

Dr. F. F. Kimbrough, from Lamison, La., to Moblie.

Dr. B. Lavigne, from New Orleans, La., to Home Place.

Dr. J. D. Tuten, from New Orleans, La., to Lake Charles.

Dr. W. H. S. Sutherland, from Wheeler, Miss., to Mobile. Ala.

Dr. S. A. Gordon, from Callirene, Ala., to Marion.

Dr. B. E. Clark, from Branch, La., to Rayne.

Dr. S. Atkinson, from Quitman, La., to Tremont.

MARRIED.—Dr. Isidore Cohn and Miss Elsie Caroline Waldhorn were married on April 5, 1910.

On April 5, 1910, Dr. W. S. Lawrence and Miss Merle Mauldin, of Tennessee, were married.

At Gulfport, Miss., on April 14, 1910, Dr. L. C. Rouse and Miss Florence Wood were married.

DIED.—On April 1, 1910, at McComb City, Dr. T. J. Gordon, at the age of 73. Dr. Gordon graduated from the Tulane Medical Department in 1858.

TULANE NOTES.

IMPORTANT NOTICE—REUNION AT ST. LOUIS, JUNE 7.—The headquarters for Tulane Alumni at the A. M. A. meeting will be the Southern Hotel. Banquet, June 7. Address Dr. H. J. Scherk, Secretary, Century Building, St. Louis.

ALUMNI WEEK, NEW ORLEANS, MAY 9 TO 14, 1910.

The faculty of the Tulane Medical Department has instituted a period during the days before the week of the University commencement, to be known this year and hereafter as Alumni Week. Its purpose is to provide an occasion for the return of the graduates of the Medical Department for a week's time, during which it is intended that every member of the faculty shall present some feature related to the particular department in which he teaches.

It is proposed during Alumni Week to demonstrate the advances and methods in instruction and facilities provided by Tulane. Each day of the week will be full of interesting features in order that there may be profit as well as pleasure for the visiting graduates.

While the exercises and features of Alumni Week are intended primarily for the graduates of the Medical Department, the occasion will be open to all medical friends who may be visitors in New Orleans at the time.

SCHEDULE FOR ALUMNI WEEK.

MONDAY, MAY 9, 1910—DEPARTMENT OF MEDICINE.—Clinic on Pellagra (if material is available), or Technic of Vaccination, with lantern slide demonstration. PROF. GEORGE DOCK.

Results of Home Treatment of Tuberculosis in New Orleans. PROF. J. B. ELLIOTT, JR.

Demonstration of Methods of Physical Diagnosis. PROF. GEORGE S. BEL AND Staff.

Practical Application of Physiotherapy. PROF. J. B. GUTHRIE.

Splenic Anemia. Clinical Pathology Demonstration. DR. J. D. WEIS.

Modern Dietetic Ideas of Diabetes. DR. I. I. LEMANN.

Demonstration of Proctoscope and Esophagoscope. DR. S. K. SIMON.

Demonstration of Clinical Pathology. DR. C. C. BASS.

Demonstration of Clinical Pathology. DR. RANDOLPH LYONS.

TUESDAY, MAY 10, 1910.—9:30 A. M. Charity Hospital—Demonstration Clinic. Diseases of the Eye. PROF. M. FEINGOLD.

11:00 A. M. Charity Hospital—Demonstration Clinic. Diseases of the Ear, Nose and Throat. PROF. C. J. LANDFRIED.

3:00 P. M. Richardson Chemistry Building, Tulane Campus. Some New Chemical Reactions of Interest to the Clinician; with Demonstrations. DR. ISRAEL I. KLEINER.

3:30 P. M. Richardson Memorial, Tulane Campus. Exhibit of Department of Anatomy. PROF. IRVING HARDESTY and Staff.

3:30 P. M. Richardson Memorial, Tulane Campus. Exhibit Museum of Anatomy. *Emeritus* PROF. EDMOND SOUCHON.

8:00 P. M. Hutchinson Memorial. PROF. J. A. STORCK, Hygiene of the Alimentary Tract. (Following PROF. STORCK's lecture PROF. ISADORE DYER will give a Lantern Slide Clinic on Skin Diseases.)

WED., MAY 11, 1910.—9:30 A. M. TO 12 M. Charity Hospital—Demonstration Clinic. Nervous Diseases. PROF. P. E. ARCHINARD.

Diseases of the Skin. PROF. ISADORE DYER and PROF. HENRY E. MENAGE.

Orthopedics and Surgical Diseases of Children. PROF. E. D. FENNER.

2:30 P. M. Richardson Memorial—Tulane Campus. Exhibits and Demonstrations in the Department of Physiology. PROF. GUSTAV MANN and Staff.

8:00 P. M. Hutchinson Memorial. PROF. IRVING HARDESTY, The Anatomy of the Ear in Relation to the Theories of Hearing.

THUR., MAY 12, 1910—DEPARTMENT OF SURGERY. PROFS. RUDOLPH MATAS, H. B. GESSNER, J. SMYTH and Staffs.—8:30 A. M. TO 12 M. Charity Hospital. Clinics by Members of the Surgical Staff.

University Campus, St. Charles Avenue. Litter and ambulance drill by members of the Freshman and Sophomore Classes in Surgery, under the direction of PROF. JOHN SMYTH.

2:00 P. M.

TO

The Hospital Corps of the United States Army, Jackson Barracks, under the direction of the Post Surgeon, will co-operate in making this exhibit in giving first aid to the wounded and sick, especially interesting and attractive.

4:00 P. M.

8:00 P. M. Hutchinson Memorial, Canal Street. Short paper on surgical subjects by several members of the Surgical Staff.

TO

9:30 P. M. Illustrated by lantern slides.

FRIDAY, MAY 13, 1910—DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY.—9:00 A. M. TO 12:00 M. Charity Hospital. Autopsy Demonstration, by PROF. C. W. DUVAL and Staff.

- 2:00 P. M. TO 4:00 P. M. Richardson Memorial. Lecture on Tuberculosis, followed by demonstrations of cultures, by PROF. C. W. DUVAL.
- 4:00 P. M. TO 6:00 P. M. Richardson Memorial. Lecture on Amebæ, followed by demonstrations of cultures, by DR. M. COURET.
- 8:00 TO 9:00 P. M. Richardson Memorial. Lecture on methods demonstrating *Treponema Pallida*, by DR. W. H. HARRIS.
- 9:00 P. M. Richardson Memorial. Lecture on the Pathology and Bacteriology of Leprosy (lantern slide demonstration), by DR. F. B. GÜRD.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

The Diseases of Children, by HENRY ENOS TULEY, M. D. Southern Medical Publishing Company, Baltimore.

It is a pleasure to report to the profession another contribution from the South, and one which so comprehensively covers the field as the book in review.

A careful sequence in the development of the child is presented in the book, with no pains spared to make each point readily understood. The author's familiarity with the practical field is everywhere patent, while his experience as a teacher has permitted the arrangement of the text in a logical fashion.

Not only are general diseases amply entertained, but considerable space besides is given to diseases of the special organs.

There are over 600 pages of text and illustrations, and altogether presented in a practical way for either student or practitioner. DYER.

Diseases of Infants and Children, by HENRY DWIGHT CHAPIN, A. M., M. D., and GODFREY ROGER PISEK, M. D. Wm. Wood & Co., New York.

This excellent and comprehensive text has been drawn from the many years of experience of Dr. Chapin, with the assistance of Dr. Pisek, who is also well known in this field.

The publishers have spared no pains in making a book, presented in excellent style and with carefully selected illustrations.

With the authority which the name of Chapin must give to this text, it can be assured a place among the standard works on Diseases of Children. DYER.

Practical Points in the Use of X-Ray and High Frequency Currents, by ASPINWALL JUDD, M. D. Rebman Co., New York.

This is just the book for the practitioner who wishes a ready guide to the use of the X-Ray apparatus. Not only are the definitions clear,

but the application of this much-abused therapeutic measure is made practical in the particular diseases in which it may find any sort of usefulness.

DYER.

Marriage and Disease. Edited by PROF. H. SENATOR and DR. S. KAMNER. Paul B. Holber, New York.

An abridged edition of "Health and Disease in Relation to Marriage and the Married State," free from purely technical and professional matter and made intelligible to the ordinary reader. It was prepared and translated from the German by Dr. J. Dulbery, of Manchester, Eng., and consists of over twenty articles by German, mainly Berlin, writers, on the relation of climate, race, heredity, and various congenital and pathologic states to marriage.

Its chief purpose is to spread, without sensationalism, the knowledge required for the prevention of evils caused by bad marriages. It fulfills this purpose worthily and is to be commended.

C. C.

Publications Received.

J. B. LIPPINCOTT COMPANY, Philadelphia and London, 1910.

International Clinics, by leading members of the medical profession throughout the world. Vol. I. Twentieth Series, 1910.

D. APPLETON & CO., New York and London, 1910.

The Conquest of Disease Through Animal Experimentation, by Jas Peter Warbasse, M. D.

LEA & FEBIGER, Philadelphia and New York, 1910.

Modern Medicine, edited by Wm. Osler, M. D., and Thos. McCrae, M. D. Vol. VII: *Diseases of the Nervous System*.

REBMAN COMPANY, New York, 1910.

The Sexual Life of Women in Its Physiological, Pathological and Hygienic Aspects, by E. Heinrich Kisch, M. D.

G. V. MOSBY & CO., St. Louis 1910.

The Suregry and Pathology of the Thyroid and Parathyroid Glands, by A. J. Ochsner, A. M., M. D., LL. D., and Ralph L. Thompson, A. M., M. D.

Miscellaneous.

Annual Report of the Department of Sanitation of the Isthmian Canal Commission, for the year 1909, by W. C. Gorgas. (Washington Government Printing Office.)

The Rat and Its Relation to the Public Health, by various authors. (Washington Government Printing Office.)

Pennsylvania Health Bulletin: Report on the Germicidal Effect of Water From Coal Mines and Tannery Wheels Upon Bacillus Typhosus, Bacillus Coli, and Bacillus Anthracis; Report on the Effect of Repeated Injections of Products of the Tubercle Bacillus on Lymphatic Organs. (Published by the State Department of Health.)

Reprints.

The Propaganda for Reform in Proprietary Medicine. (A. M. A. J.)

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans,
FOR MARCH 1910.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	5	2	7
Intermittent Fever (Malarial Cachexia)	1	2	3
Smallpox.....			
Measles	11	2	13
Scarlet Fever.....	3	2	5
Whooping Cough.....			
Diphtheria and Croup.....	1		1
Influenza	22	11	33
Cholera Nostras.....			
Pyemia and Septicemia	2		2
Tuberculosis.....	29	40	69
Cancer.....	17	4	21
Rheumatism and Gout			
Diabetes		1	1
Alcoholism	2		2
Encephalitis and Meningitis.....	3	3	6
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	17	10	27
Paralysis	4	2	6
Convulsions of Infants			
Other Diseases of Infancy	6	5	11
Tetanus	1	2	3
Other Nervous Diseases	2		2
Heart Diseases	78	35	113
Bronchitis	10	4	14
Pneumonia and Broncho-Pneumonia.....	32	33	65
Other Respiratory Diseases	4		4
Ulcer of Stomach.....			
Other Diseases of the Stomach	2	4	6
Diarrhea, Dysentery and Enteritis.....	11	7	18
Hernia, Intestinal Obstruction.....	4	1	5
Cirrhosis of Liver.....	9	7	16
Other Diseases of the Liver	1	3	4
Simple Peritonitis		1	1
Appendicitis.....	4	2	6
Bright's Disease	24	16	40
Other Genito-Urinary Diseases.....	6	6	12
Puerperal Diseases	3	1	4
Senile Debility.....	7	3	10
Suicide	6		6
Injuries.....	26	8	34
All Other Causes.....	29	15	44
TOTAL.....	382	232	614

Still-born Children—White, 17; colored, 11; total, 28.

Population of City (estimated)—White, 272,000; colored, 101,000;
total, 373,000.

Death Rate per 1000 per annum for Month—White, 16.85; colored,
27.56; total, 19.75.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 29.98
Mean temperature 67.00
Total precipitation 3.15 inches.
Prevailing direction of wind, west.

New Orleans Medical and Surgical Journal.

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JUNE, 1910.

No. 12

Original Articles.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

The Problem of Eugenics.*

By MORTON A. ALDRICH, Ph. D., Honorary Member of the Louisiana State Medical Society, and Professor of Economics and Sociology in Tulane University.

The pleasant and unusual honor of an invitation to address fellow-students pursuing lines of inquiry other than one's own carries with it the less pleasant necessity of choosing a subject to talk about. You are not much interested in many of the subjects that pertain to me; and I am wholly ignorant of many of the subjects that pertain to you. I have tried to strike a happy compromise between your interests and my own by asking you to consider with me a problem which neither your profession nor mine knows any too much about, yet in the solution of which each is to have a large share.

I am to discuss with you some thoughts suggested by the recent establishment—at the University of London—of the Francis Galton Laboratory for National Eugenics, and by the endowment—at the University of Cambridge—of research in the

* Annual Address before the Louisiana State Medical Society, May 4, 1910.

physiology of heredity and variation. The problems of eugenics are highly controversial, but the most helpful attitude of mind is not usually that of the attorney for the prosecution or for the defence, and I shall try to speak about the character and aims of eugenics—not in the form of one-sided argument, but of impartial exposition.

The physician is interested in eugenics because it deals with human progress. This progress is many-sided, and it may help us to place the science and the art of eugenics in their relation to other arts and sciences concerned with the progress of man if, before coming to closer quarters with our subject, we pause for a moment to divide students of human progress into two groups—the biological and the social. On the one hand is the group of thinkers—like the biologists and the psychologists—who are devoting their lives to a study of the biological laws which explain the physical and mental development of individual human beings. On the other hand there is the group of thinkers—students of morals and religion, philosophers, jurists, historians, economists, sociologists, educators—which looks to the first group for its data as to men biologically, and concerns itself with the inter-relation and inter-action and inter-dependence between men in society. The task of the biological group will not be achieved until all men and women have sound minds in sound bodies. The task of the sociological group will not be achieved until it has established right relations among men. As a pure science, eugenics lies wholly within the first group; but as an art—in its applications to human progress—it calls on the sociologist as well as the biologist. In this address I shall discuss separately the science and the proposed art of eugenics.

First, then, what is the science of eugenics and what are its investigators doing? Sir Francis Galton, who coined the word, defines eugenics as “the study of agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally.” The investigators in this so-called new science—there is some question as to how far it is really new—are, then, a group of biologists engaged in the study of man and his progress from the same standpoint as that from which Darwin and his followers studied the lower

species. At the same time, they are earnestly hoping to use their knowledge for the promotion of human welfare, and they offer some far-reaching advice which I shall discuss a little later. But, as investigators, they are nothing more or less than biologists whose subject matter is the racial character of man.

They fully realize that their first effort must be to amass facts. The official statement of the Francis Galton Laboratory for National Eugenics reads:

“It is the intention of the founder that the Laboratory shall serve

1. As a storehouse of statistical material bearing on the mental and physical conditions in man, and the relation of these conditions to inheritance and environment;

2. As a center for the publication or other form of distribution of information concerning national eugenics;

3. As a school for training and assisting research workers in special problems in eugenics.

The research workers of the Galton Laboratory have already published, among other papers, studies on “The Inheritance of Ability,” “The Inheritance of Psychological Characters,” “The Inheritance of the Insane,” and an interesting memoir entitled “The Promise of Youth and the Performance of Manhood,” which undertakes to trace the relation between success in the examinations for the B. A. degree at Oxford and subsequent success in professional life. A “Treasury of Human Inheritance,” containing pedigrees of various types of intellectual ability, of tuberculous stocks, of epilepsy, physical depravity, and so on, has just appeared; and Professor Karl Pearson, who directs the work of the Galton Laboratory, is also directing a series of “Studies in National Deterioration.” These publications, you will notice, aim to carry further the earlier studies of Galton on hereditary genius and natural inheritance.

The investigators are seeking to assemble any facts which may throw light on the hypotheses of Mendel and Darwin as applied to man, which tend to prove or disprove Weismann’s (and Galton’s) teaching that acquired characters are not transmitted, or which tend to show whether children inherit the mental characters of their parents to the same degree as they

inherit their physical characters. In a word, they are engaged in studying the laws of heredity as applied to man in all their aspects—and the influences of environment so far as they believe them to affect heredity—with a view to determining more exactly the relative influence on human creatures of inheritance and environment.

In all this study they are not only asking the ways in which the physical and mental stamina of man are progressing or deteriorating and the laws of human development which explain this progress or this retrogression; they are also “looking for light on human destiny.” As Professor Karl Pearson says, they are asking “how a nation becomes physically and mentally more vigorous,” and the influences which “can make” or “mar national life and racial character.”

There can be no two opinions about the value of new light on questions of such moment. The earlier biologists dodged, to a considerable degree, the study of man. Thus we find Darwin writing Wallace in 1857: “You ask whether I shall discuss ‘man.’ I think I shall avoid the subject, as so surrounded with prejudices, though I fully admit it is the highest and most interesting problem for the naturalist.” To-day investigations such as I have been describing may compel haphazard observation and vague speculation as to human development to give place to more exact knowledge. We want the whole truth, both for its own sufficient sake and because we recognize that, in the fine words of Mr. John Morley, “truth is no pale abstraction, but a vital force in human progress.”

At the same time, however, we must constantly bear in mind the pitfalls of possible error in the acceptance and interpretation of the facts from which the laws of this biological science of mankind are to be deduced. While we engage to welcome, open-mindedly, whatever facts the investigators may bring, we must at the same time insist that the workers in eugenics be themselves open-minded. They must exercise the greatest care in the collection of facts. They must state the evidence fairly. They must not assume as facts hypotheses favorable to their conclusions; and they must guard both themselves and their followers against the temptation to put their best foot forward by claiming a little more than their facts

warrant. Let me picture briefly two or three of these pitfalls.

One is the pitfall of an unduly simple application to man of conclusions reached from a study of lower forms of life. We are interested in the plant experiments of De Vries and Burbank, and in the prodigious successes of racehorses sired by Eclipse or Electioneer; and we are right in asking if these achievements have lessons for the human species. But the truth is quite as likely to be hindered as advanced by any rash generalizations from imperfect analogies of plant and animal breeding. Almost necessarily, biologists acquire their methods and training and habits of thought through the study of forms of life below man. They are peculiarly liable, therefore, to underestimate the need of extreme caution in applying to man conclusions of evolution in its application to the lower animals, and to be carried too far by incomplete analogies.

Do not misunderstand me here. My point is not at all that the fundamental influences of inheritance common to the lower animals and to man should be denied due recognition, but that due emphasis should also be given to the influences of the complex superstructure of society peculiar to man. It is not that very many conclusions from animals to man are not true, but that they represent only a fraction of the truth.

Again, there is the pitfall of an unwarranted use of the statistical method. The physician knows only too well the shortcomings of statistics concerning the physical and mental nature of man. He knows how difficult it is to collect vital statistics accurately, with just discrimination, and how easy it is in interpreting them to overstep the line between their use and their abuse. The investigators in eugenics praise nothing so much as their exact method, this method of statistics. We agree that vital statistics will be used to render far greater service than they do to-day; but such confidence must not blind us to the permanent limitations of the method of statistics in its application to individual men and women in human society.

Statistics are, at best, a crude method of knowing so highly differentiated and so elusive a creature as man; and there is no field concerning the development of man where statistics are more often inconclusive than the field of battle between the

partisans of the influence of environment and the partisans of the influence of heredity. Here the same facts may often be interpreted either way, though in either case inconclusively, because of the impossibility of isolating the results of inheritance from the results of environment.

This brings me to one other pitfall which we should not overlook, namely, the very human temptation to exaggerate the importance of eugenics by explaining by inheritance characteristics of individuals that may equally well be accounted for by environment. The tone of some of the present writers of the eugenic school does not altogether assure us that they will collect and interpret statistics with all possible caution, nor that they will never attempt to make statistics prove conclusions regarding man which cannot be proved by statistics.

Some of us feel that Galton himself, in his famous volumes on "Hereditary Genius" and "Natural Inheritance," provides us with an example both of the misinterpretation of statistics and of the tendency to claim too much for the influence of inheritance, when he asserts that genius finds expression so inevitably that no adversity of circumstance can keep it down. With an assumption like this you might prove even Huxley's assertion that "an ounce of heredity is worth a ton of education." Few of us question the large importance of human inheritance, but Galton's assumption that genius is irrepressible begs the whole question. We should be on our guard against the tendency of Galton's followers to make the same or similar assumptions.

I have tried to give equal attention to the truth and to the liability to error of eugenic investigations. We need to note the pitfalls; but it is still more necessary to note that the value of facts like those being gathered in the Galton Laboratory is not diminished because this or that individual happens to misinterpret them.

Thus far we have considered eugenics as a science, concerning itself solely with the advancement of knowledge. Let us now turn to consider the problem of the application of this knowledge to human welfare. Earnest men like Galton and Pearson do not stop with asking what influences in human society are making for race progress and what influences are

making for race decay. They go further and ask: In the light of this knowledge, what steps should an intelligent society take to prevent such deterioration and to promote such progress? And they believe profoundly that their knowledge entitles them to an important part in the direction of endeavors for the permanent advancement of the physical and mental soundness of mankind. They propose, in a word, that society shall undertake, by every wise means in its power, to encourage parenthood of the fit and to discourage parenthood of the unfit.

By what means is society to approach these desirable results? By the gentle influence of public opinion or by the harsh prohibitions of positive law? The responsible leaders of this propaganda for applied eugenics are thoroughly moderate and sane in their choice between these means. It is grossly unfair to caricature them as relying for the success of their proposals on the prohibitions of positive law. They recognize that they must look for their success almost not at all to legal prohibitions and almost wholly to the pressure of a sound public opinion. They see the difficulties suggested by the question, Who would be the legal judge capable of separating the fit from the unfit? They understand, as much as we do, that enforceable law must rest on a broad and firm foundation of public opinion. The suggestion of Galton that the state might subsidize wedlock of the exceptionally fit is not, you will note, a prohibition nor a compulsion, but a bounty dependent on voluntary choice. The few legal prohibitions favored by the advocates of applied eugenics are such as apply only to those who, under any sane standards, are obviously unfit—to idiots, epileptics and the most depraved criminals, in whom it seems hopeless to develop a sense of personal moral responsibility.

Since all these legal prohibitions taken together would reach only the slightest fraction of the population, it is clear that the proposed social control of marriage and of parenthood is to be a control through the pressure—conscious or unconscious—of public opinion. The heart of the science of eugenics is the relative importance of nature and nurture. The heart of the art of eugenics is the answer to the question: How far is it possible

for a body of thoughtful men, with an earnest conviction of the value of their eugenic teaching, to influence the formation and growth of a public opinion powerful enough to encourage parenthood of the fit and to discourage parenthood of the unfit? The problem of applied eugenics, then, is almost wholly a problem in the guidance of public opinion.

While, as I have just said, the leaders in the practical proposals of eugenics are thoroughly sane in their reliance on public opinion rather than on law, they are not so sane, I think, in their sanguine faith that this body of opinion may somewhat readily be created. When advocates of eugenics like Galton and Pearson permit themselves to see visions of the rapid ascendancy of patriotic eugenic opinion—nay, even of a eugenic religion—they show a quite inadequate understanding of how the compulsion of public opinion and the sanctity of religion are born and grow strong. A public opinion insistent enough to exercise a large degree of control over marriage and parenthood, over the most fundamental experiences of life, must necessarily follow only slowly, after a world of sane and patient effort. Man is not wholly a rational animal, and controlling opinions and religions do not rest on rational considerations alone, however sound these may be, but on the outcome, also, of age-long experiences of pleasure and of pain.

Consider again the magnitude of the task which the advocates of eugenics set public opinion to do—a task compared to which Mr. Roosevelt's propaganda against race suicide is an easy and modest proposal. For Sir Francis Galton and his followers ask not only that the fit have larger families, but that the pressure of public opinion become so controlling that unfit individuals would be influenced to deny themselves children at all. To a large group of the people of our generation such opinion would appear in direct opposition to self-interest. None the less, the advocates of eugenesis set themselves the task of converting a public opinion which permits the evils they combat into a public opinion which will restrain them.

They would establish chairs of eugenics in the universities. They would have every agency which influences ideals work to arouse in men a pride in their organic inheritance of good

physical, mental and moral stamina—a pride greater even than that men take to-day in their inheritance of the external circumstances of wealth or of conventional social position. At the same time they would have us work for the further growth of that individual sense of moral responsibility on which all our progress—moral, political, and industrial—has depended, until it includes a keen sense of the individual responsibility of each human being for the organic soundness of the generations yet to come.

I would not belittle the difficulties of the task; but neither would I have them appear more insurmountable than they are.

Choice in marriage is now, and always has been, in all stages of civilization, very largely restricted by public opinion. We have only to think of the power of opinion in making effective monogamy, or the narrow limits of royal marriages, or the restriction of marriage within the prohibited degrees, or the curious and intricate taboos of the low Australian tribes. The pressure of such opinion, indeed, is so customary and so accepted as a matter of course that it is not often felt as a hardship, and usually not felt at all. The problem, therefore, is not the creation of control of marriage by public opinion. It is rather the substitution of a more wholesome opinion for a less wholesome one—the elevation of existing opinion where it is, at present unsound, and the strengthening of existing opinion where it is already sound.

Much is even now being done, and more can be done in the immediate future, to promote intermarriage between sound men and sound women, and perhaps—though this is less certain—to persuade them to have larger families.

But, granting that society may do much to promote marriage and parenthood among the fit, can it be successful also in restricting parenthood among the unfit? Among the unsound there has always been an honorable minority of men and women who denied themselves the great happiness of children because their sense of their responsibility was too high to allow them to take the risk of transmitting to their children the weaknesses of their own constitutions. Wise education of public opinion would add largely to the numbers of this honorable minority.

There still remain the classes of the unfit who would probably marry and have children just the same. If any task could be more difficult than to determine at what point to draw the line between the fit and the unfit and to determine who would fall below this line of minimum fitness for parenthood, it would be the task of persuading the individual that the decision that he was unfit was just. And if he were persuaded, how generally could public opinion drive home a sense of responsibility firm enough and constant enough to lead him to forego children? But where the unfit continue to marry and have children, the desired result—fewer children of the unfit—may still be reached, indirectly and more slowly, by the influence of ideals of sound marriage. As Professor Irving Fisher points out, in his wonderfully sane and comprehensive “Report on National Vitality,” if a considerable percentage of the population once shall come to regard vitality as an essential endowment, healthy persons will marry, chiefly, healthy persons; and unhealthy persons, in so far as they marry at all, will do so among themselves. The necessary consequence will be that the number of children of unhealthy couples will decrease, especially after the first generation.

And Professor Fisher concludes: “It would be folly, of course, to expect any change in ideals so complete that there would not be numerous exceptions to hygienic mating, but, once the bulk of mankind are guided by a truer principle in forming marriages, the effect on racial development will make itself distinctly felt within a generation.”

In this great work for the upbuilding of a sound and powerful public opinion, all thoughtful and earnest men must co-operate. The students of eugenics, and all biologists, have their important part to perform.

We need not pause to ask how far the teachings of Galton and his followers are new. The apostles of eugenics delight overmuch, I think, in picturing their science as a thing apart, and in emphasizing what they add, rather than what they borrow from earlier thought—from the proposals of Plato, from the actual régime of ancient Sparta, and from a considerable group of later thinkers. What is new is less important than what is true; and originality is often a poor thing. Neither

need we dwell on their tendency to belittle the achievement and helpfulness of workers for human progress in other fields—a pastime of which some of them are overfond.

Such individual vagaries are of trivial importance; they can do no permanent harm. They may amuse us for a moment, but they should not divert our minds from the essential fact that the leaders in eugenics have seized a fortunate moment to hasten our entrance into a wholesome period of unbiased investigation of the laws of heredity as applied to man. They offer us the outlines of a plan of research and of a proposal for the education of public opinion which promise to be fruitful both in knowledge and in human character. It would be wholly unfair to ask that the investigators of the Galton Laboratory show any considerable results so soon. We may expect them to do more, but already we are their debtors because they have centered our attention, in a striking way, on the need of the knowledge they are seeking and on the value of the service it may later render.

All the students of society, too, in whatever field, must contribute their share toward the establishment of a sounder public opinion. The success of the eugenic movement depends no less upon the effective utilization of the knowledge we already have than upon the acquisition of new knowledge. It is as essential that the truth concerning race improvement through heredity shall influence the many as that it be discovered by the few. When the advocates of eugenesis enter the field of practical proposal, they must join hands with the group of men whose study it is to know the wisest means for promoting better relations among men, if they are to gain for their teachings the widest and deepest influence on human conduct.

At the outset of this talk I suggested a contrast between the work of the sociologist and the work of the biologist. But the essential point is that they do not compete, but co-operate. In the intellectual division of labor each approaches the central question of the progress of man with an inevitably lop-sided equipment, and each must have the help of the other.

I like to think of the science and the art of eugenics, and you as physicians will like to think of them, not as something aloof, but as important aspects of a larger and richer whole,

as parts of a group of movements united in seeking one noble common end, as parts of a work which will prove, I believe, to be the one contribution of our generation most potent for the good of all the generations which are to come. I refer to our effort to conserve and to increase our national health and our permanent national vitality. To the physician, the largest significance of this effort—and of that aspect of it which is our subject to-night—is that he is so fortunate as to be permitted to have the most prominent part in it, whether as investigator or teacher, in the laboratory or at the bedside.

The problem of eugenics is twofold: To know the truth about the influence of inheritance, and to apply this truth to the benefit of the future generations of our race. The goal is high; the certainty that it is also distant should not daunt us. It is enough that we know that public opinion, based on sound eugenic teaching, can do much, and that how much it will do depends on the efforts of each individual one of us. The physician who performs his part in the formation of this public opinion will be content, because he has learned of nature the lesson of quiet work:

“One lesson of two duties kept at one,
Though the loud world proclaim their enmity—
Of toil unsevered from tranquility;
Of labor, that in lasting fruit outgrows
Far noisier schemes, accomplished in repose,
Too great for haste, too high for rivalry.”

NOTE ON THE LITERATURE OF EUGENICS.—A number of Sir Francis Galton's recent papers have been collected in a volume entitled *Essays in Eugenics*. The essays are: *The Possible Improvement of the Human Breed Under Existing Conditions of Law and Sentiment*; *Eugenics: Its Definition, Scope, and Aims*; *Restrictions in Marriage*; *Studies in National Eugenics*; *Eugenics as a Factor in Religion*; and *Probability, the Foundation of Eugenics*. This volume is published by the Eugenics Education Society, 6, York Buildings, Adelphi, London (price, one shilling, sixpence).

The Eugenics Education Society publishes also: F. Galton, *Local Associations for Promoting Eugenics* (price, one penny); and a quarterly journal, *The Eugenics Review* (annual subscription, four shillings, sixpence). Among Galton's earlier works are: *Hereditary Genius, Its Laws and Consequences* (1869); *Inquiries Into Human Faculty and Its Development* (1883); and *Natural Inheritance* (1889).

Karl Pearson's essays on *The Scope and Importance to the State of the Science of National Eugenics* (1907), and *The Groundwork of Eugenics* (1909), (price, one shilling each) are published as volumes one and two of the Eugenics Laboratory Lecture Series, by Dulau & Co., London.

The Memoirs of the Galton Laboratory for National Eugenics include: I. *The Inheritance of Ability*, by E. Schuster and E. M. Elderton (price, 4 shillings); II. *A First Study of the Statistics of Insanity and the Inheritance of the Insane Diathesis*, by D. Heron (price, 3 shillings); III. *The Promise of Youth and the Performance of Manhood*, by E. Schuster (price, 2 shillings, sixpence); IV. *On the Measure of the Resemblance of First Cousins*, by E. M. Elderton (price 3 shillings, sixpence); V. *A First Study of the Inheritance of Vision and of the Relative Influence of Heredity and Environment on Sight*, by A. Barrington and K. Pearson (price, 4 shillings); VI. *The Treasury of Human Inheritance; Pedigrees of Physical, Psychological, and Pathological Characters in Man* (price, 14 shillings); VII. *Influence of Parental Occupation and Habit on the Welfare of the Offspring*, by E. M. Elderton (shortly); VIII. *Influence of Unfavorable Home Environment and Defective Physique on the Intelligence of School Children*, by D. Heron (shortly).

These Memoirs, and also the following Studies in National Deterioration, are obtainable from Dulau & Co., London.

Studies in National Deterioration: I. *On the Relation of Fertility in Man to Social status, and on the Changes in This Relation that Have Taken Place in the Last Fifty Years*, by D. Heron (price, 3 shillings); II. *A First Study of the Statistics of Pulmonary Tuberculosis (Inheritance)*, by K. Pearson (price, 3 shillings); III. *A Second Study of the Statistics of Pulmonary Tuberculosis (Marital Infection)*, by E. G. Pope, Revised by K. Pearson, with an appendix on *Assortative Mating*, by E. M. Elderton (price, 3 shillings); IV. *The Health of the School Child in Relation to Its Mental Characters*, by K. Pearson (shortly).

Volumes I to III of *Sociological Papers* (1904, 1905, 1906), published by Macmillan & Co. for the Sociological Society, London, contain papers on eugenics, accompanied by valuable discussions and press comment.

W. Bateson, *The Methods and Scope of Genetics* (1908), the University Press, Cambridge, England (price 35 cents), is an inaugural lecture by the Darwin Professor of Biology in the University of Cambridge concerning inquiries into the physiology of heredity and variation, for the investigation of which his professorship was endowed.

W. Bateson, *Mendel's Principles of Heredity* (1909), G. P. Putnam's Sons (price, \$3.50), is a thorough account of discoveries in regard to heredity due to Mendel's method. Their application to man is discussed on pages 1-7 and 303-306 and in Chapter 12, entitled Evidence as to Mendelian Inheritance in Man. The appendix contains a translation of Mendel's two papers and an extensive bibliography.

The Report of Professor Irving Fisher on *National Vitality, Its Wastes and Conservation* has been reprinted as Senate Document No. 419, 61st Congress, Second Session, and may be had without charge on application to U. S. Senator Owen. Pages 671-676, and 719-723, and also 627-628 and 632 of this reprint deal directly with eugenics. A brief bibliography of eugenics is to be found on page 676.

Other references are: F. A. Woods, *Mental and Moral Heredity in Royalty* (1906), Henry Holt & Co.; J. A. Thomson, *Heredity* (1908), G. P. Putnam's Sons (price, \$3.50); A. G. Keller, *Eugenics, The Science of Rearing Human Thoroughbreds*, Yale Review, Vol. XVII, pages 127-155 (August, 1908); D. C. Wells, *Social Darwinism*, Papers and Proceedings of the American Sociological Society, Vol. I, University of Chicago Press; F. H. Giddings, *Darwinism in the Theory of Social Evolution*, Popular Science Monthly, Vol. LXXV, pages 75-89 (July, 1909); and C. B. Davenport, *Eugenics, the Science of Human Improvement by Better Breeding* (1910), published by Henry Holt & Co., New York (price, 50 cents.)

Expert Medical Evidence at One Dollar Per Day.

By THEODORE WILLIAM SCHAEFER, M. D., and ALBERT M. WILSON, M. D.,
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The Kansas City Court of Appeals rendered an opinion recently in which it decided that a physician who has been called in as an expert to testify in a case has no legal or moral right to charge extra compensation, as an expert, but must be satisfied to accept the usual witness fee of one dollar per day as a remuneration for the higher and positive order of information given by him, thus placing the physician on the same plane with the ordinary witness who does not know anything about medicine or surgery.

The case in which the Appellate Court handed down this law was that of Dr. S. Grover Burnett against J. H. Freeman and wife. Freeman and his wife sued the Metropolitan Street Railway Company for damages for injuries alleged to have been received by Mrs. Freeman in a street car accident. Dr. Burnett, who is a specialist for nervous diseases, was subpoenaed as a witness and testified in behalf of the Freemans. This evidence was in regard to the injuries which Mrs. Freeman claims to have received. Dr. Burnett afterwards demanded of Freeman and his wife that he be paid the sum of \$50 as an expert witness. He claimed that the Freemans agreed to pay him this amount if he would testify in the case. Freeman and his wife refused to pay the amount demanded, and Dr. Burnett sued them and received judgment to the amount of the claim. The Freemans then appealed the case to the Kansas City Court of Appeals. Dr. Burnett declined to accept the customary fee of one dollar a day. The Court of Appeals, in its decision, went into the question of payment for expert testimony, citing cases in the middle ages in England. The decision showed that a few hundred years ago men of all professions—ministers, artisans, artists and lawyers—were allowed extra fees for their services as expert witnesses.

In its opinion the Court of Appeals says: "It must be conceded that the physician, surgeon or lawyer is not entitled to any more consideration than an expert in any other calling; a farmer, a merchant, and he who follows most any other avocation may be qualified to testify as an expert in cases which

call for peculiar knowledge which he possesses and which he has spent his time and money in acquiring. If either of these could demand compensation more than the ordinary witness fee, the administration of the law would undergo a radical change. In many cases strangers to the litigants and wholly disinterested in the affairs of parties to a suit could be compelled to testify as to questions that require special knowledge gained in the prosecution of such witness' special callings, all of which could be classed as expert knowledge, gained at the expense of the possessor and out of which he obtains his living. After considering the question in all its bearings, we have arrived at the conclusion that a witness called to testify as an expert, whether as a physician or any other branch of knowledge, may be compelled to state his opinion upon hypothetical or other questions involving his professional knowledge without compensation other than the witness fee taxed to the ordinary witness. It is the duty he owes to the State in aid of its orderly existence and in return for which he enjoys its protection. Indeed, in this very case, the plaintiff invoked the special knowledge of his professional brethren in aid of the price he charged for his attendance upon the court." It was urged as one of the reasons why plaintiff was entitled to recover that he always charged extra attendance as a witness in the line of his profession, and the defendants knew that, and with such knowledge had him subpenad as a witness." In regard to this contention, the Court of Appeals says: "We contend that such a contention should not afford any help to plaintiff's case. The fact that he may have exacted compensation for attending court as a witness in other instances, which the law did not justify, should not legalize his claim, therefore, this case is reversed and remanded."

In answer to the judicial contention that "It is the duty he owes to the State in aid of its orderly existence, and in return for which he enjoys its protection," we contend that the State does not protect the physician in the collection of his fees, and that the existent bankruptcy laws, which enable even a common laboring man to derive benefit from the same, have worked greater harm to the physicians than to any other class of professional men or tradesmen.

CERTAIN ABNORMAL TENDENCIES OF THE JUDICIAL BODY POLITIC THAT ARE ANTAGONISTIC TO THE ECONOMIC INTERESTS OF THE PRACTITIONER OF MEDICINE AND SURGERY.—It is a well known fact that doctor's bills are difficult to collect, because the laws do not protect the doctor. The doctor is, therefore, a very poor collector—a lawyer is a better one for obvious reasons. Physicians are the most underpaid of all the professions. They receive but a very paltry reward for their services rendered to suffering humanity. Irregular hours (a relic of ancient times and a great nuisance—here a reform is needed) and an insufficient remuneration keep him inexorably in the *circulus vitiosus* of a strenuous existence. He is rewarded with the least thanks and tokens of gratitude. For the time being, in moments of great danger, when he appears as a saviour, he is overshadowed with promises, but rarely are they kept. The physician loses at least one-third of his earnings. His services are demanded at one dollar per day as a witness. Upon his testimony depends the result of a case. That testimony wins the case for the attorneys at whose instance he was subpoenaed, whether it be just or unjust. The lawyer receives his fee, which is from \$1,000 to \$5,000, or even more, depending on the amount involved, when the doctor gets only one dollar for the time and knowledge rendered, neglecting his patients, losing many dollars and probably losing families permanently, but no one expects a lawyer to serve at a dollar a day!

As an instance of how physicians are treated, the following experience of a well-known physician, resident of this city, deserves to be narrated: He was called in as the leading witness in a damage suit. The client paid the doctor \$10 in advance as a remuneration in payment for the loss of time and preparation while giving testimony. Solely upon his testimony the suit was won for the attorney. A verdict in favor of the client was rendered, the latter receiving \$10,000 (ten thousand dollars), the lawyer getting \$5,000 (five thousand dollars) of that sum. It never occurred to the lawyer to reward the doctor who so loyally and faithfully aided him, consequently the doctor will be strictly *in reversus* the next time and give evidence with a *reservatio mentalis*, when he knows positively that the lawyers will eventually get the best of the deal.

Away out in Kansas a farmer had a petty trouble with another agrarian potentate on account of hogs. A few dollars could have easily adjusted the difference out of court, but the vanity and false pride of the agrarian lord had been irritated and so he lavished an squandered \$1,500 on a shrewd lawyer to help him out of the foolish legal imbroglio. A child was stricken down with appendicitis in the family of the farmer, and so he sent for a surgeon, who operated and thus saved the life of the child. The surgeon's fee, a very liberal one, was \$300, which, however, the farmer thought too much, and the latter cut it down to \$75. A lawyer, by a hyperbolic process of expansion, would have demanded more to save a life—he would have taken away the whole farm for his "services!" Meanwhile the surgeon had been appraised of the hog suit and the munificence and magnanimity of the farmer to the lawyer, and, realizing the utter absence of gratitude on the part of the farmer, he told the latter to never call him again, for a man who places a greater material value on a hog than on his own child is unworthy of the services of a physician and surgeon.

THE DOCTOR'S IMPORTANCE IN DAMAGE SUITS AND MEDICO-LEGAL AFFAIRS.—Physicians and surgeons are called more often as witnesses in damage suits than farmers, merchants, mechanics and others. From the very nature of things the doctor is obliged to give a superior or more specialized kind of information in the form of evidence. When giving such information he is, of course, obliged to give the case his most careful attention and special preparation, just exactly as the lawyer does (the latter is not the "whole thing!"), but no such demand is made on those who have no higher education, like artisans, merchants, laborers, *id genus omne*. The washerwoman gets \$1.50 per day, and a plumber \$6 per day, neither of them having a higher educational capacity—nor is any required—but the Court ordains that the doctor should only get \$1.00 per day as a witness, when the lawyers get the *præda leonis*—the lion's share, for in the nature of things due to custom, the lawyers have a complete monopoly of legal dynamics. Very naturally a lawyer expects to be paid for his advice and services. Why should not a physician? All medical evidence is a higher

order of knowledge and is, *de facto*, expert evidence which should be remunerated in a manner how a lawyer is remunerated. What we desire is fair play! Instead of trying by a sophistic process of subreption to obtain medical advice, information and knowledge for *nothing* from a physician, robbing him of his valuable time, without even compensating him *before* the trial, the court should at least appoint an accredited expert and pay the latter a regular salary, say from \$3,000 to \$5,000 per annum. He certainly is worth the price. Why should such an undue favoritism be shown to lawyers, permitting them to hold the fattest offices and sinecures?

MAN'S INHUMANITY TO THE DOCTOR.—It has always remained an unsolvable paradox to us why a profession that devotes so much of its time in rendering charitable services to suffering humanity is rewarded with so much ingratitude! The physician receives so little of this world's goods! The industrialist and shopkeeper think of it as their only salvation! The physician very naturally becomes a good student of nature and human nature, and ere long learns to know that man, after all, is a very fickle, whimsical and ungrateful creature, no matter how kind and self-sacrificing the physician has been when his patient was dangerously ill, but when the patient has recovered the good services are soon forgotten! Should a doctor have the misfortune of getting into legal trouble (the lawyer never fails to frighten him, and to charge him a good sum), ten to one, the fickle and ingrate public will array itself against him. Even his best friends leave him when he needs them most! He is at the mercy and whims of a judge and the prejudices of a jury! Human nature is the same, even in this supposed "age of education!" Falsified and other corrupt means have been unscrupulously used to tear down a doctor's reputation. Any other accused, in a similar plight, stands a far better chance. Just look at the attention newspapers show the lowest criminals! Many of the latter are elevated to prominence.

Why is it that the majority of patients are so reluctant in paying a doctor who has answered an emergency call requiring his immediate attention? Why is it that patients call at the doctor's office with purposely empty pocketbooks? Why is it that patients take advantage of a doctor, never paying

him, telephoning him on every inopportune occasion, robbing him of his most valuable time? Why do people who have plenty of time call the doctor at night and never pay him for his services? Here a reform is imperatively demanded!

Dr. Homer Wakefield, an accomplished and distinguished writer on medical subjects, says:

“That the general influences of the public upon the medical men as a class is degrading rather than ennobling or activating to great endeavor. The nucleus of this evil is that the *general public* does not reward the proficient in learning and successful by their patronage.*

THE COURT TOO MUCH IN FAVOR OF THE LAWYER.—It is a fact, and frequently commented upon, that whenever a physician has brought a suit for services rendered the court has invariably reduced the fee, but when a lawyer brings a suit for a very large sum it is generally granted without much ado! Is this fair? Certainly not. The existent laws give the lawyer the benefit in all cases, while the physician may or may not receive a compensation for his skill and service, and while the laws are not (Sic!) made for the benefit of the lawyers, the fact nevertheless remains that the latter is the real beneficiary in every case, while the physician is the bagholder. The trouble is that the *lawyer has been using the doctor as a mere tool*, getting all possible valuable information out of him, and considers him ignorant if he fails to accommodate a lawyer in giving evidence which is diametrically opposed to his convictions!

LAWYERS ARE MUCH TO BE BLAMED FOR THE HYPERBOLIC EVIDENCE GIVEN BY MEDICAL EXPERTS. *The lawyers are wholly responsible for this prostitution of evidence!*

As soon as a physician says that he cannot conscientiously and morally swear a certain way he is considered a “dummy” or a poor witness! Again, *the lawyer receives a fee in the form of a compensation which is wholly out of proportion to the real or intrinsic value of the transaction*, when compared with the more arduous and responsible services rendered by a physician. In nearly every instance in which a doctor has been sued it will be found that the suit was brought on account of revenge,

* The Selection of a Doctor, Practitioner or Investigator, by Homer Wakefield, M. D., New York. *The Dietetic and Hygienic Gazette*, March, 1910, pp. 145-149.

blackmail or because the physician insisted that he be paid. *Ultima ratio juris consulti est pecunia*; that the doctor is to save life, relieve suffering and assuage sorrow. No responsibility rests on the lawyer other than serving his client to the best of his ability. The law and evidence determine the fate of his client—not the argument or pleading of the lawyer—while life, health, happiness and the prevention of pain and sorrow are all dependent upon the physician's services. He alone bears all responsibility of the life placed in his charge. The lawyer has no such obligation and responsibility.

Too much license is permitted to a lawyer when examining a physician. Instead of sticking to the subject at issue, he purposely wanders away from the subject at issue and asks the doctor irrelevant and misleading questions in order to ridicule and confuse him. His whole psychological trend of thought and endeavor is to impress constantly upon the mind of the medical witness the exalted superiority of the lawyer—an *assumption* which is so offensive to an educated physician, when he is convinced that he is confronted by a lawyer who has often no scholastic or academic education at all!

Lawyers who have no refinement and show no courtesy whatever often compel physicians to appear as witnesses, especially when they are most busily engaged, thus seriously interfering with their very life pursuits without even compensating them for their loss thus accrued. These legal annoyances (looked upon by some as chicaneries) are some of the acerbities with which the physician has to contend. Frequently the lawyer sits leisurely in his office, smoking his cigar, and subpoenas the doctor to give his deposition when he is busily engaged with patients. Now, such thoughtless, acephalic, discourteous, arbitrary acts do not make friends! They evince lack of culture! There are, happily, physicians who are not fools and who do not practice servility and genuflexion, and who have the courage of their convictions and cannot be overawed by the conventional intimidations practiced by lawyers. Dr. Ludwig Hektoen of Chicago, Ill., for instance, who was annoyed by the constant effort of certain persistent lawyers to obtain a deposition from him, simply refused to testify or even appear at the notarial court. When Dr.

Hektoen received formal notice that he must appear or a writ would be issued to compel his appearance, he laughed and replied: "I am too busy to take the trouble to do it, especially when my attorney has advised me not to do so."

THE PSYCHOLOGY OF JURISPRUDENCE.—VOLUNTARISM THE PSYCHIC VIS A TERGO OF THE LAWYER.—A PSYCHOLOGICAL STUDY.—As a science jurisprudence is one of the most conservative. When compared with the collateral sciences it is certainly the least progressive. It is chiefly based upon custom, tradition and authority. It is based upon human nature. Its laws are eminently artificial creations of man, subject to time and space. Jurisprudence is, therefore, not based upon natural laws, except those created by man to suit the occasion.

It was Professor Hugo, of Göttingen, Germany, who was the first (1799) who conclusively refuted the fundamental notions of the whole theory of natural right (*Naturrecht, droit naturel*) (*Allgemeine Rechtslehre*, von Dr. Theodor Sternberg. *Erster Teil. Die Methode*, 1904, p. 26).

Laws are established by man according to their necessity. The necessities of man, however, are different at various historical epochs. Jurisprudence, psychologically speaking, deals principally with relations, conditions and circumstances of the *will*, the most primitive psychic faculty of the mind. Its tendency is to concede to the *will* the prevalent domination of the conceptions. Starting out with this brief psychological analysis, it is very obvious why the average lawyers' natural inclination drifts into politics, for the latter is simply the *action of one will upon another will*, if one desires to fathom the real nature—the *nature naturanis*—of the psychic process. Now, the state is, therefore, nothing but a voluntary organization. In this latter characteristic quality lies the center of gravity, so to speak, of its very nature. The one who desires to penetrate deeply into the domain of the mind must learn to comprehend this variety of voluntary organization. The sum total of the lawyer's mental phantasmagoria is chiefly involved in *voluntarism*! He is, *ipso facto*, as far as his practical world conception is concerned, a *voluntarist* or *positivist*!

Here we have a subsumption, the substratum or fundamental basis of all psychic manifestations being voluntarism—the posi-

tivity of jurisprudence—dogmatism—authority—the *will* power or ruling of the jurist or legislator crystallizing itself into a fixed "*dixit*," known as the "*law*." Law and theology were once united. They both persecuted the witches. A relic of this allegiance is shown by the political lawyer in our day who delivers speeches in churches. Another relic is the revival of wearing the judicial robes among the judges of the Supreme Court.

THE LEGAL PROFESSION EXERCISING A PRIVILEGED SYNDICOCRACY.—A PSYCHOLOGICAL, CULTURAL AND SOCIOLOGICAL ANALYSIS.—The conviction is gaining ground that the legal profession is fast gaining complete control of all the chief political offices of our country. The fattest, best and most remunerative offices are held by lawyers. There is a saying: "As the ducks take to water, so do the lawyers take to the offices." In no country in the civilized and enlightened world has a single body of men belonging to one profession, like that of the legal, usurped the right to become the privileged political class as in our country, thereby favoring class legislation.

The lawyers have aggressively crowded almost all others from official life, retaining, of course, the best sinecures, being constantly aided by the newspapers, their most powerful, unscrupulous political ally, for we know that one hand washes the other. Seventy per cent of the members of our administrative and legislative bodies are lawyers. To where are we drifting? Instead of this republic being a government of the people, by the people and for the people, it is now a government of the people, but *by* the lawyers and *for* the lawyers.

The legal profession has an absolute and exclusive control of the machinery of the courts, exercising a kind of privileged *syndicocracy* (*a domination or rule of lawyers*), which is too much in favor of the lawyers. Much of the so-called "power" invested in lawyers is a feudalistic remnant of medievalism, like that of the "Divine Right of Kings." Subpenaing a person before a notary public previous to a suit in order to obtain a deposition is an example of such a "power!" It is apparent that a Legislature largely composed of lawyers, and that could be easily manipulated, made such a feudalistic instrument possible! It is largely for the benefit of lawyers. No other class has such a prerogative, especially in a free country like ours. However,

reversing the order of conditions, when physicians desire the enactment of a law for *their* protection, they meet with insurmountable difficulties when the bill is presented to the Legislature; frequently their attempts are defeated by ridicule and dense ignorance. Is this the reward that a physician receives, notwithstanding the fact that one-third of his services are rendered gratis to the poor, some of whom belong to the *vulgus infidum*?

Why should one profession assume to be endowed with a hegemony, a tutelage, aiming to exercise a dominating custodianship, establishing rules of conduct for others, which are not retroactive? It seems to work one way—always the other way.

When the scholar learns his Latin lesson, he is made aware of the great psychological truth that "*humanum est errare*." The physician in his daily work becomes more and more impressed with the teachings of Hippocrates, the father of medicine, that "Life is short, and the Art long; the Occasion fleeting; Experience fallacious, and Judgment difficult," which teaches him the limitations of the human mind, that the human mind is fallible and that we cannot place our faith blindly in any authority. Nothing is more distasteful to an educated mind than to practice idolatry or human fetishism in the form of anthropoid veneration. We may say and write anything we please about the President without fear of being arrested or exiled for lèse majesté. But the case is different if we should do so in regard to the Supreme Court, its judges, Federal or State. Should we attempt to question the opinion or decision of a judge of the Supreme Court, one is liable to be fined for contempt of court. Now, why should such a veneration be shown to a judge in a free country like ours? Why, no clergyman or physician receives such Oriental homage! Human nature is the same the world over, and no judge is ever lifted above his *principium individuationis*, being transmogrified into a superhuman being, simply because he happens to sit on the judicial chair; he still remains a human being, swayed by the various psychic influences. The fact of the case is that a judge is just like any other mortal and is liable to make mistakes. His opinion is human and he is liable to err. We believe that this cult

in judicial veneration has certainly been carried too far, for it smacks too much of the temporal power in a Dalai-Lama, which is not in spirit with the age and with our free institutions. In this age of criticism the ancient, blind faith in human infallibility is rapidly giving way to a more rational conception of human nature and its limitations.

Happily we are no longer living in such terrible times, when judges, from all accounts, liked nothing better than condemning people to death or torture in batches of a dozen or more, without trial. However, a variety of these atavistic tendencies seems to persist in the crania of certain stern Federal judges, especially those who hail from the backwoods regions, who are feared on account of their extreme severity, notwithstanding their advanced years, when one would suppose that the human mind should become milder and more lenient in the exercise of its deliberations.

In his "History of the Science of Politics," p. 40, Frederick Pollock says of the celebrated English jurist, Jeremy Bentham (1748-1832), the apostle of utilitarianism ("the greatest happiness is the end of human action"): "Bentham's want of touch of public feeling and its tendencies comes out in startling ways in his doctrine of penalties.

"Utilitarianism is, in common understanding, associated with rational philanthropy, and justly so. Yet Bentham seems to have thought it practicable and rather desirable to burn incendiaries alive, and several of his other suggestions are both cruel and absurd."

William Blackstone (1723-1780), the author of the "Commentaries," the first sacred text-book placed in the hands of our students of law in England and America, was not free from the superstitions of his age, for he believed in sorcery and witchcraft.

The lawyers of New York City to-day freely talk of the judges. They say to one another: "Keep away from that court," "Avoid that judge," meaning, beware of their slothfulness, ignorance and immaturity. It will be conceded, as a general proposition, that lawyers do not reach the bench by assiduous study, high legal accomplishments and professional training. Political organizations have much more to do with

their advancement than personal merit. They are the creatures of the system, and as long as it exists all men must seek judicial positions through it. The truth is, the administration of justice depends primarily upon the character of the judges, and the judges on the character of the lawyers from whose ranks they are recruited.

SHALL WE REFORM OUR JUDGES?—Dr. Cornelius Williams, St. Paul, Minn., in his presidential address (The *Outlook*, September 11, 1909, p. 49-50) before the Minnesota State Medical Association, said:

In most instances in our State the judiciary is of the highest order, but there are certain rules of practice that are obsolete and injurious, particularly those pertaining to the trial of cases involving the practice of medicine and surgery. Even the judicial mind may seem to be warped by what is technically known as passion and prejudice. The medical guild would seem to be the only effective way of eliminating men of such minds and methods. ("The Physician's Place in the Community." *Medical Review of Reviews*, Nov. 25, 1909, p. 760.)

It would be an interesting topic for discussion: The physician, his enemies, who are they? What are they? etc. That they have enemies and cruel traducers is apparent everywhere. Whenever we seek justice or protection in the courts or in the legislative halls the fact is emphasized that we have constantly to fight for ordinary rights. (Editorial, *The Dietetic and Hygienic Gazette*, March, 1910, p. 138.)

The well-known writer on social pathology ("Degeneration"), Max Nordau, in his popular work entitled "Conventional Lies," depicts in very graphic terms the incessant intrusion of religion into all our daily acts of life. We can also draw an analogous parallelism in the constantly growing legal intrusions, affecting almost all our daily transactions, commercial or otherwise. Are we always illegal in our actions and do we need constant watching? Is the human race bad? It has come to pass that lawyers have attempted to make themselves so essential and important that many business men imagine that they cannot do without them. But how easily do people dispense with a physician, a theologian or any other professional man! Theology and medicine (the latter is no

longer based upon traditions and authorities) have had to bow to the inexorable mutations of time! Even jurisprudence must bow to the inevitable. Theocracy has seen its day. It only exists in barbarous countries. The Reformation, the great religious movement of the sixteenth century, arose from a general dissatisfaction with the various abuses of the Church of Rome. The inhuman system of excessive use of drugs ("hyper-medication") was responsible for the birth of homeopathy. The phenomenal development of Christian Science in recent years (simply *because physicians have neglected psychology*) gives emphatic claims to its importance as a loud protest against existing evils in medicine, more especially against the inordinate and wholly unreasonable, insane increase of physicians out of all proportion to the lessened number of really sick people. Doctors should study men more—and medicine less! They have lost the goose that lays the golden eggs: "*Psychology*." The latter, practically belonging to medicine, has drifted into the hands of the laity! It is now too late to lament!

A celebrated writer on social pathology says: "There is a whisper in the air that the evils and abuses existing in law and in politics will in due course of time cause a *reaction* and give birth to a mighty *opposing movement* of a religious and *reformatory nature*, as in the case of theology and medicine just cited. It has been predicted by many that societies will be formed whose aim will be of a religious and humanistic nature, whose sole endeavor will be to discourage strife and useless litigation (legal prophylaxis), on the one hand, and the removal of the low pothouse politician by persons of education, ability and integrity.

There is one thing, however, that we admire so much about the legal profession; that is its apparent good fellowship, especially the strongly developed feeling of solidarity that is so unanimous among lawyers when momentous questions arise concerning matters pertaining to mutual union or consolidation of their collective interests. Lack of solidarity is the political and economic weakness of the medical profession.

No one can dispute the ethical consensus of the legal profession on any great question of right or wrong; yet there are gross evils which prevail in our social body, in politics and in

our legislative, judicial and administrative machinery, which many seem to regard with comparative indifference. We are fully aware, however, of the fact that there are problems, the solution of which are legal propositions, theorems, etc., as, for instance, the many social problems, which are actually problems of development, evolution; by this we mean to say that they do not permit a sweeping answer; their solution, however, being a gradual and constant improvement in a symptotic approximation—an ideal that can never be attained by experience.

Persons of intelligence have often expressed surprise at the enormous number of lawyers in this country. Recent statistics furnish us the incredible information that the city of New York alone possesses almost as many lawyers as the entire German Empire, with its 65,000,000 inhabitants! Certain abnormal sociological factors are evidently responsible for these incongruous conditions. The worst of all is politics, the curse of this country!

The social conditions still lack the requisite stability of conservatism. In no other modern industrial state is abuse of the power of money, the predatory extortion of the masses by gigantic monopolies and the political degeneracy and corruption so general as in our great republic. Are the republican, quasi democratic, institutions that have been glorified as the salvation of mankind and only "perfect" form of government responsible for the corruption of man? We see this so markedly exemplified in many of our large cities, where political corruption flourishes extensively, among officeholders. We are living in the golden era of the pleb. The pleb has become an aristocrat. Good breeding and education are very superficial and lack in many ways the coveted ideals that are so much desired. Among the grave problems we are seriously confronted by the dire, foreboding race question.

One of the collaborators of this article attended a series of lectures at a law school and made the anthropological and cultural observation, when comparing both of the professions, that the student of law and the student of medicine have been each evolved from one and the same raw material: They are largely, if the truth be told, the products of our common

schools, and *not* of our higher colleges! A professional psychology, however, gradually, after a number of years, modifies the student's mental impress or world conception. Although of the same basic cultural origin, the lawyer diverges as a *voluntarist* and the doctor becomes a follower of *inductive science*. A lawyer, after all, is simply a lawyer. Lawyers by training and practice are expert in making things seem that which they are not. Hence, in the practical application of this sophistry, they are very good politicians.

Naturally the lawyer, whose psychology is based upon voluntarism, uses the *argumentum ad hominem et captendum vulgus*, instead of the *demonstratio causæ* and *demonstratio ab effectu*. It is for this reason, as was so flagrantly shown in a recent case where a physician was accused of having poisoned an entire family, that the lawyers were completely at sea, losing their mental equilibrium when matters exoteric to their calling, as the subject of toxicology, became the most important point at issue. Their dense ignorance of chemistry was conclusively shown by the fact that they were continually falling into pitfalls and snares of contradictions and difficulties which left the door open for the most inexcusable, acephalic mistakes. An ignorance that ignores was reprehensibly and culpably demonstrated by the fact of their calling chemists, toxicologists and scientists from other cities, thereby ignoring and depreciating some of our own proficient and experienced chemists, toxicologists, pharmacologists and scientists. Such inconsiderate acts certainly do not make friends! Conversely, the defense and prosecution had at least so much regard and appreciation that they did *not import* legal talent from Chicago, New York City and elsewhere. Evidently some of these lawyers are so sclerocephalic, philochromatic and laimargic that reason cannot enter their encephalon. A physician can easily recognize the flaws, helplessness and weak points of a lawyer in the whole *modus operandi* of his cross-examination when he is entirely outside of his domain, especially in matters concerning medicine and the natural sciences, particularly chemistry, about which he knows absolutely nothing, notwithstanding his arrogance of assumption to the contrary. What one has never learned it would be impossible for him to ever know. The great trouble with many of our lawyers seems to be that they suffer mega-

cephically from the delusion of their self-importance, which borders on an overestimation of their mental capacities.

He resorts to the sophistic artifices of subreption, cavillation, heterozetesis, homonymy and amphiboly, and frequently, no matter how trained the cross-examiner may be in all the tricks of entangling a witness, he is often befuddled!

"I should like to give a few more examples to clinch my argument, but the man who tells the whole truth is considered to be either immoral or a crank. But if we are compelled to conceal our beliefs because public morality forbids them, let us do away with public morality and come out into the light of day." ("Some Absurdities of the Law." By A. W. Herzog, in *Harper's Weekly*.)

The intellectual and cultural history of the eighteenth and nineteenth centuries can easily convince any intelligent person that the religio-ethical or moral progress of people and nations is *not* so much the work of the intellect, the enlightenment of the understanding, but represents *largely* that of *volition* and ethical fortitude. For that reason the decisive victories in the battles of the mind are *not* won in the field of learned interpretations and abstractions, but *entirely* in the domain of the *will*, and that of the *character*, the so-called *personal equation*.

From this brief psychological analysis it will appear evident that the lawyers have very naturally an immense social, political and dominating advantage over the doctor! It is, of course, largely a voluntary, not an intellectual, advantage. The cultivation of the natural sciences has *always* been the sphere of the physician. Physicians have always been silent, indefatigable workers in all the departments of the natural sciences. The history of all the collateral sciences is illumined by a galaxy of discoverers belonging to the medical profession!

Has a lawyer ever made a great scientific discovery?

Notwithstanding these psychological characteristics, which we have briefly depicted, there is no reason why the doctor and lawyer should not come to an understanding. The fact of the case is, as a distinguished lawyer, William G. Thompson, LL. B., of Boston, Mass., has clearly pointed out: "That neither profession understands the other's attitude of mind, and therefore each fails to do the other justice." ("Possible Reform of Judicial Procedure." By William G. Thompson, LL. B. (p.

963-967), and "Improvement of the Present System by Expert Testimony." By Ezra Thayer, LL. B. (p. 967-969). *The Boston Medical and Surgical Journal*, Dec. 30, 1909.)

CONCLUSION.—There is a prevalent popular misconception of the supposed fabulous income and high potential prosperity of doctors. This erroneous belief has naturally caused certain voracious, unscrupulous creatures to make piratical raids upon unsuspecting doctors, extorting money by a process of subreptitious ransom. Blackmail, suits based upon trumped-up charges and other predatory methods are employed to get hold of the big imaginary money bag of the doctor. Certain vampires and parasites prey on doctors. Various "doctors' defense companies" have sprung up like mushrooms to keep the easily intimidated doctors in constant fear. The ignorant masses imagine that a doctor knows nothing of business, and that he is surely an "easy mark." Conversely: Who has ever thought of a "Lawyers' Defense Company?" Such a concern would be an anomaly. There are no parasites preying on the legal profession! The medical profession should put an end to these abominations. It is high time! The medical profession has been ignoring situations and conditions for years that we ought to study introspectively with a view to reform and progress.

Serious complaint has been made by physicians that non-medical men are transgressing on the domain which belongs exclusively to medicine. Medicine has always been a favorite dumping ground for outsiders and interlopers. The laity has a strange delight of dibbling and dabbling in medicine. This craze (largely encouraged by a system of politics) has insiduously entered *our so-called institutions for experimental medicine and research laboratories, which are swarming with non-medical men, id omne genus*, many of whom have never studied and practiced medicine, to the utter disgust of men of medical education! *O quæ mutatio rerum!*

Do clinical experience and medical advancement come from the laity? Would a person of sound mind employ a plumber or a gas-fitter to repair the delicate works of an expensive watch? Research workers of exclusive specialization in physiology, laboratory pathology, experimental induction of disease in lower animals, laboratory chemistry, experimental pharma-

cology, etc., *mirabile dictu*, are mostly composed of *non-medical men*, and these absorb a large bulk of the funds that should by rights go to deserving, accredited physicians, and to the latter alone! Are we not now suffering from a disagreeable overcrowding of our profession? What do these individuals want in medicine except to parasitically feast on the funds that belong to the physician! A regular "house-cleaning" is in order in some of these experimental institutions!

Why should medical and scientific evidence (this includes chemical, quasitoxicological evidence, medicine being the *alma mater of chemistry*) be inferior to legal intelligence? The relation between the physician and lawyer is seriously disturbed.

A lawyer going to a physician for professional advice and treatment will cause a feeling of uneasiness and lack of confidence on the part of the physician because the latter realizes the fact that the lawyer is deliberately underestimating his services, because he undervalues them. The lawyer is trying to get *something for nothing*, or at a *low* price. Conversely, the lawyer never fails to charge a high sum to a doctor when the latter calls on the former for legal advice. Why should medical evidence be of a cheap order? In trying to get something for nothing the standard of ethics is naturally lowered. It produces a bad moral impression. It is degrading. It encourages the masses to depreciate the services of a competent physician, when this depreciation is arbitrarily legalized by an edict from a court. The only thing, by way of *lex talionis*, that a doctor can do, if no relief can be obtained, is simply to *discourage* lawsuits for damage in the future. They are speculative law suits and a nuisance. Lawyers will then come to their senses and realize the iniquity of the situation and treat doctors in the future according to the dictum of the Golden Rule.

The medical witness should have, and probably will have, as the masses become more intelligent and better educated, morally and intellectually, a greater influence in the settlement of medico-legal cases in the future than he has now under existing antiquated methods of trial.

Will the medical profession do the State a service in bringing about measures of reform in this particular sphere of legal procedure?

Uncinaria (or Hook Worm Disease.)*

By D. W. KELLY, M. D., Winnfield, La.

Uncinaria is a specific zooparasitic disease found especially in the tropical and sub-tropical sand areas, and is caused by hookworms, which inhabit the small intestines. There are two kinds of hookworms, the Old World hookworm and the New World hookworm. The former is rare in this country. The New World hookworm is the one found in this country. The worm is about one-half to about three-quarter inches long, and about the size of a number eight thread. They are white in color. It has a well developed mouth, esophagus, intestinal canal and various glands, to which the female adds the capacity for many thousand eggs. The female worm lays large quantities of eggs; these are passed in the fecal matter, and if the defecation is on moist, Southern, sandy soil, in the summer the eggs hatch and form embryonic hookworms. Now, these tiny worms feed for a few days and cast off their skin twice within the next week, like a snake does. After it enters the stomach it sheds its skin twice again, making five distinct changes.

These embryonic worms may go into surface wells and are carried into the system through drinking water or by means of uncooked vegetables, or breathed in by dust. But the most common way they enter the body is through the feet of bare-footed people. Few people have sanitary closets in this country, hence the fecal matter is passed in surface closets, in fence corners, or behind outhouses, and for this reason the area of one hundred and fifty feet, or more, around the residence of hookworm families are infected.

How the larvae burrow in the human flesh: This was first demonstrated by Loos, a German investigator, who accidentally spilled a drop of water containing about a thousand of the embryonic worms on his hand, in a few minutes his hand began to burn and sting. He noticed this and then placed another drop on the back of his hand, when the same burning and itching was noticed. Just seventy-one days after this the hookworm ovum was detected in his fecal matter. These experiments have been repeated a number of times with the

* Read on May 2, 1910, before Winn Parish Medical Society.

same results. Through means of puppies, Loos demonstrated microscopically that the worms entered by means of hair follicles into the cutaneous veins, and were carried to the heart, thence to the lungs. Here they worked their way into the air cells, and from these into the bronchial tubes, and then crawl along the mucous membrane, up the windpipe, and down the stomach. Hookworms may live for years in the intestines. They have been known to live six years in the intestines. Hookworms do not breed in the small intestines. Every worm in the small intestines has got to go from the outside. There may be any number of worms in a single case. There have been forty-six hundred reported passed from one patient. I had a patient of mine to tell me his child passed a handful after taking treatment. On the other hand, a very few worms may produce a very severe anemia. The hookworm has in its mouth two pairs of fangs, and a conical tooth. His esophagus is very strong and muscular, and he has a great deal of suction power. He inserts these fangs into the mucous membrane of the intestines, and pulls this portion of the mucous membrane into his mouth.

Now, through the holes made by these fangs he begins to suck the blood. It is said he has a gland at the base of his conical tooth, and that when he bites the mucous membrane he injects a poisonous fluid into his victim like a snake. This fluid is to keep the blood from coagulating, and is also poisonous to the patient's general health. Now the worm makes a great many bites during one meal, and every wound oozes blood for hours, and perhaps days, after the worm moves his feeding place. It is estimated that the amount of blood lost after the worm turns loose is a great deal more than that sucked out by him, and it is on account of this fluid he injects, when he begins to bite, that this oozing of blood continues. This indefinite oozing of blood explains how a few worms may cause a severe anemia. These holes made in the mucous membrane make a very fertile field for other forms of bacteria, and this condition is responsible for some of our old cases of intestinal troubles. Men, women and children are all susceptible to the hookworm disease. Women and children are most susceptible, because they live more in the infected area

around the house. People whose occupations bring them in contact with moist sandy soil in the South are the ones most likely to be infected. The infection is highest in the young, and becomes less and less after the patient begins to wear shoes. There is no class of people exempt from this disease in this section of the country, or at least in the South. To prove this to the student of a certain medical college in this section of the country, whose students come from all walks of life, but mostly from the wealthier class of people, I understand a great number of these boys have hookworm disease, and are taking treatment, this disease having been demonstrated by microscopical examination of the fecal matter. In my own practice it is very seldom I examine fecal matter microscopically that I do not find the ovum. Of course, I only examine the fecal matter, as a rule, in anemic patients.

Stiles claims that the negro is a very potent factor in the spread of the hookworm disease. He also claims that the country schools in the South are a very great disseminator of the hookworm disease. Some writers have gone so far as to say compulsory education in the South means compulsory hookworm disease. This is due to the improper disposal of the fecal matter, and the pollution of the soil in the neighborhood of the schoolhouse.

Symptoms: Hookworm disease, like all other similar diseases, appears from the very mildest, in which there is no objective symptoms, to the worst, in which the symptoms stand out. The following are the symptoms:

History of having lived in the Southern sandy soil, history of ground itch, a severe anemia, jerking blood vessels of the neck. The skin is very white or dirty yellow, sallow or tan. The face shows a stupid expression, the eyes stare blankly. The pupils are usually dilated. The patient is generally undeveloped. A patient twenty years old may not be larger than a fifteen-year-old child. Pot belly, or buttermilk belly, is a common symptom of this disease. The severe cases are also bloated, and their blood will hardly stain. Wounds heal very slowly in all these cases. All the mucous membranes are very pale and white, and practically devoid of color. In the severe cases the pulse varies from 80 to 130, and they may have ravenous

or capricious appetites. May have a perverted appetite, may be a dirt-eater. They usually have a craving for some particular thing, such as pickles, resin, or coffee. A dirt-eater is simply a bad case of hookworm disease. The hair on the head looks as if it were dead. These patients are weak and are unable to do anything. The children are unable to study, and if they do they have headache, and cannot concentrate their thoughts if they try. If they start to school they get sick immediately. One of my patients had for a long time a very bad headache; his temples had been blistered time and again. This headache was relieved when he was treated for hookworm disease. It was due to anemia. Pregnant women who have hookworm disease have a great tendency to abort.

Diagnosis: Given a severe anemia, history of ground itch, history of having lived in Southern sandy soil, pot belly, undeveloped, jerking blood vessels of the neck, you are almost sure to have a case of hookworm disease. The microscopical examination of the fecal matter is the only sure diagnosis. Prognosis is always good, especially in the young, but the longer the patient has had the infection the slower the recovery. A great deal depends on the personal habits of a patient as to his complete recovery.

Treatment—First Preventive: First, all people living in infected districts should wear shoes. Second, proper disposal of fecal matter, preventing soil pollution. We should have septic closets, and by no means let the soil become infected. A cheap and inexpensive water closet, as recommended by Stiles and others, is built as an ordinary water closet, except the floor extends under the seat to the back wall, and the back wall under the seat is closed by a well-fitting trap-door. The holes, also, over the seat are arranged so they can be covered when not in use. The front door of the closet fits tight, and the ventilators in the closet should be screened. The object of all this is to prevent flies from coming in contact with the fecal matter. The closet has a septic bucket for the reception of the fecal matter. This bucket contains a small layer of dirt, and one-fourth full of a five per cent solution of crude carbolic acid. This bucket should be emptied once or twice a week and contents burned or buried. This should not be

buried within three hundred feet of a well, creek or other water supply.

The fundamental principles underlying the treatment of hookworm disease is the same as that which underlies the treatment of all other zooparasitic diseases, viz: First treat the parasite, not the patient. After the parasite is treated, attention may be directed to treating the patient. Although hookworm disease may occur in persons in any walk of life, it is particularly among the poorer classes that it is found, and the average hookworm patient (children excepted, to a certain extent) cannot afford to lose several days' wages to undergo treatment. It is, therefore, frequently expedient to conduct the treatment Saturday evening and Sunday morning. It will often be found difficult to arouse the interest of a community in regard to the presence of the hookworm disease and the need of treatment. This can only be done by the doctors talking to the people and educating them up to it. The periodicals and newspapers are doing a great work along this line. But, as a rule, the poor people who are infected in this country don't read much, so it is up to the doctor to educate the people.

Warning: Notwithstanding that primarily we are to treat the parasite, not the patient, it should be remembered that if too great a quantity of thymol is absorbed by the patient alarming symptoms and even death may occur. Accordingly, the patient and the patient's family should be carefully warned not to permit the patient, under any circumstances, to have on Sunday during which the treatment is given any food or drink containing alcohol, fats, or oil, and very little water. Patent medicines should be mentioned in particular, because of the alcohol many of them contain, and even milk and butter should be forbidden. Stiles reports one case of serious thymol poisoning which followed promptly after the patient took a copious drink of milk the day thymol was taken. I had two patients that stood thymol badly when taking small quantities with very little water.

Preliminary Treatment: On Saturday evening give a dose of Epsom salts. The reason is this: The hookworms are surrounded by more or less mucus and partially digested food.

Unless this is removed the thymol may not reach the parasites, but may reach the patient, and this is contrary to what is desired, as the thymol is intended for the parasite, not the patient.

Thymol Treatment on Sunday: (1) Position of patient: Instruct the patient to lie on his right side immediately before taking the drug and to remain in that position for at least half an hour after. The reason for this is that many of these patients have enlarged stomachs, and if they lie on their right side the drug has the benefit of gravity in passing rapidly from the stomach to the intestines, but if any other position is assumed the drug may remain in the dilated cardiac portion of the stomach for some hours and result in considerable complaint on the part of the patient and delay of the drug in reaching the worms. (2) Time of dosage: The time of giving, and size of dose, should be arranged on one of two plans, depending on existing conditions. (a) The plan I usually follow for an adult is: At 4 a. m., 20 grains of thymol; at 6 a. m., 20 grains of thymol; at 8 a. m., 20 grains of thymol; at 10 a. m., give enough Epsom salts to move bowels five or six times. (b) If the case is an especially severe one, or if the patient has, upon the first Sunday's treatment, complained of burning or other effects of thymol, I give only 30 grains of thymol. At 4 a. m., 10 grains thymol; at 6 a. m., 10 grains thymol; at 8 a. m., 10 grains of thymol, followed by a big dose of salts. If unpleasant symptoms, such as a sensation of severe burning in the stomach, etc., have appeared this time, I keep on reducing my thymol and also reduce the amount of water given with the thymol. (3) Food: No food is allowed until after the 10 o'clock dose of Epsom salts, and I allow very little water until the salts have acted well. Some cases I allow more water than others. (4) Thymol: Finely powdered thymol in capsules, preferably in five and ten-grain capsules, should be used. (5) General rule as to age: In the table of dosage given in the next paragraph the maximum dose per day to be adopted as a routine is given for various age groups. In determining the dose, however, the rule should be followed of taking the apparent rather than the real age, and of not hesitating to cut down the dose ever lower in case of unusually severe cardiac symptoms or

other unfavorable conditions. Thus for a boy 16 years old, who appears to be only 12 years old, or in whom the anemia is especially marked, resulting in severe cardiac symptoms, the quantity of thymol should be reduced to the 12 or even the 8-year dose. Some authors give the impression that it is useless to give thymol for this disease unless the full dose is administered. This view is not in harmony with my experience.

(6) Size of Dose: The following doses represent the maximum amount to be used during one day's treatment for the age groups in question. It is practically the same table that the Porto Rican Commission has been using:

Under 5 years old.....	Grains	7½	thymol
From 5 to . 9 years old.....	“	15	“
From 10 to 14 years old.....	“	30	“
From 15 to 19 years old.....	“	45	“
From 20 to 50 years old.....	“	60	“
Above 60 years old.....	“	30 to 45	“

Total dose to be divided as indicated in paragraph 2.

Repetition of Treatment: The foregoing treatment is repeated once a week, preliminary treatment Saturday evening and thymol on Sunday morning, until the patient is discharged.

Duration of Treatment: To recognize whether the parasites are all expelled, and, therefore, to determine when to end the thymol treatment, either of two plans may be adopted, viz: (a) Microscopical examination of fecal matter. On Saturday morning make ten microscopic preparations of a fresh stool. If eggs are still present, repeat the treatment; if eggs are not found, discontinue the thymol. It takes about forty to sixty minutes to make this examination of ten slides thoroughly. (b) Cheese-cloth method: A much easier way of recognizing the completion of the treatment, and for practical results nearly as satisfactory as the microscopic examination, is the following: Instruct the patient to wash all of his stools Sunday, Monday and Tuesday through a cheese-cloth, and to keep the cheese-cloth moist and bring it to the office on Tuesday. While the fecal material will wash through, the worms will be retained in the cloth. Continue treatment as long as worms are found in the cheese-cloth.

Other treatment: If desired, iron tonics may be administered on the days on which the thymol is not taken. I put my patients, say an adult, on a tincture of iron, 1—Xm.; strychnin sulphate, grains, 1-30; bisulphate quinin, grains ii; aqua, q. s. 3i. I begin this tonic the next day after giving thymol and keep it up indefinitely three weeks in the month, leaving it off on the days the patient takes thymol. It is a good plan, however, not to give iron during the first week, for it is quite important to convince the patient that the thymol treatment is the one which is really accomplishing the lasting good. If the drug is taken Sunday the patient is likely to begin to feel some benefit by Wednesday or Thursday; his family is likely to notice it on Thursday or Friday. If iron tonics are given during the first week, the conclusion may possibly be drawn by the patient that it is really the tonic which is causing the improvement, and he may discontinue the thymol. Of the two, the thymol is, of course, the far more important, for it reaches the parasite, while the tonic reaches only the patient.

Bacteriology and Pathology of Influenza.*

By FRAZER B. GURD, B. A., M., D., New Orleans.

In writing upon the bacteriology of influenza, the question arises whether the organisms causing common rhinitis, tonsilitis and other affections of the respiratory tract, commonly included under the heading of grippe, or whether only the morphology, biology and pathogenic properties, etc., of the *B. influenzae* should be considered. Narrowly speaking, of course, the influenza bacillus is the only cause of influenza. Perhaps, however, it is best, owing to the fact that so many clinical conditions diagnosed as influenza are due to other organisms, to consider, more or less briefly, the importance of these various bacteria. The influenza bacillus will be taken up in more detail, as being the most important pathogenic factor in the production of the disease.

In a routine examination of naso-pharyngeal catarrhs and other infections of the upper respiratory tract, three organisms in addition to the bacillus *influenzae* are commonly met

* Read before Orleans Parish Medical Society, April 25, 1910.

with. Ordinary "colds in the head," as a rule, show large numbers of diplococci and streptococci. As is well known, the toxins of both these organisms are capable of producing the various constitutional disturbances, such as fever, etc., and generalized aches and pains characterizing influenza. There can be no doubt but that in a large proportion of cases one or the other of these organisms is the cause of grippal conditions.

As a matter of fact, these two organisms are so closely related to one another that it is almost unnecessary for practical purposes to differentiate between them. The only satisfactory test at present is that of the ability of the organisms to ferment inulin. The pneumococcus possesses this property to a very large extent, whereas the streptococcus is unable to attack this sugar with a production of acid. If, then, from a case of tonsilitis or other condition an organism growing in a small watery colony is found to be a coccus, retaining the stain by Gram's method and arranged in pairs or chains, one can, with comparative certainty, infer that either of the streptococcus or the pneumococcus is the cause of the affection. Both these organisms are normally found in the throat, so that only by their appearance in very large numbers can their causative agency be considered. The normal presence, too, of these organisms explains the incidence of various respiratory affections, following a lessened resistance of the part as a result of exposure or other insult.

Another organism normally present in the respiratory tract in considerable numbers is the so-called micrococcus catarrhalis—a small Gram negative diplococcus having a typical bean-shaped appearance with the concave surfaces approximated. This organism resembles very closely the meningococcus and gonococcus in morphology and staining peculiarities. It will, however, grow readily upon ordinary simple culture media, such as agar and bouillon, making its differentiation from these organisms comparatively easy. As mentioned above, this organism is normally found in the respiratory tract in comparatively large numbers. In certain conditions of inflammation in the upper air passages it can be isolated in almost pure culture and is present in enormous numbers. Whether

or not it deserves a place among the pathogenic bacteria is at present considered dubious. Pfeiffer, however, who first described the organism, considers it to be pathogenic, and reports having found the micrococcus in pure culture in pneumonia in a child. English observers have treated sub-acute and chronic catarrhs with vaccines prepared from these organisms and have reported in a great many instances satisfactory results. On the other hand, Flexner and others have considered that the organism is essentially saprophytic in character. Whatever may be the ultimate judgment with regard to this organism, there can be no doubt but that it is found in enormously increased numbers in catarrhal conditions and that in these affections it is frequently found as the predominant micro-organism.

There would appear to be a great difference between the usual case of influenza today and that of twenty or thirty years ago. Up to that time influenza was an extremely fatal disease, in some epidemics the mortality rising as high as 40 per cent., as was the case in Strassburg in 1858. Up to 1889 influenza appeared only, or largely, in the epidemic form, these epidemics occurring after definite intervals of time, rarely at a shorter interval than ten years. The spread, too, of these epidemics starting, as they did, in the extreme eastern part of Europe, and spreading gradually and comparatively slowly across the continent and ultimately to America, is extremely interesting and suggestive of some of the characteristics of the bacillus causing the disease, as well as the reaction on the part of the individual to the bacterium. The first epidemic described occurred in 1387, and from that time on a dozen or more definite epidemics can be traced in the literature. The first appearance of the disease in America was in 1732. The name influenza was first applied by Pringle and Huxham, in 1742.

The earliest epidemics took from one to three years to travel from the eastern part of Europe to England and America. A very high percentage of the inhabitants of the district affected contracted the disease. In the epidemic of 1800 from 60 to 70 per cent. of the population of Germany became victims of the condition.

With the increased facilities for travel the spread of the epidemics became more rapid, thus the epidemic of 1889, which lasted to 1892, appeared in Buchara in February; in October in St. Petersburg, in Berlin and Leipzig in November, in Paris and Stockholm in the early part of December; in Berne and London in the middle part of December. By the end of December it had reached Italy, Spain, Ireland and Turkey. About this time, too, the first case was seen in New York, and by the middle of January the disease was raging in Boston and the larger towns of New York State. In January the disease was introduced from England into Egypt, Algiers and Hong Kong. During February and March Japan and India, South America, as well as Australia, saw the beginning of the epidemic.

This epidemic was the last to show this distinct method of travel. Since that time the disease has been more or less endemic and characterized by repeated epidemics in certain localities. The clinical severity, too, of the disease has been greatly lessened since 1892. Pfeiffer and Beck were the first to appreciate the relationship of phenomena of the recurrence of the disease with the nature of the organism and the reaction of the individual. They explained the phenomenon by a loss of virulence of the bacilli and the tolerance of the individual toward the bacillus as the latter became more saprophytic in its character. They explained the ten yearly incidence of the epidemics by the loss of immunity on the part of the population with the consequent receptivity to renewed infection. The changes, too, in the nature of the clinical reaction of patients to the disease can, in part at least, be explained by the repeated infections of the individual and the consequent, more or less, universal mild immunity, though in many instances not sufficiently pronounced to protect completely against the contraction of the disease. Under certain conditions of protection from infection the disease may again become extremely virulent, as demonstrated by the mortality resulting in communities which have been infected for a prolonged period. Thus Mann, in 1900, reported an epidemic in an insane asylum in Germany where the patients for a long time had not suffered from influenza attacks, in which the mortality was 10.3%.

In 1892, about the end of the epidemic of 1889, Pfeiffer, Kitasato and one or two other observers described the small bacillus which has been recognized as the cause of the disease. Pfeiffer's description being the most complete, the organism has been connected with his name. Pfeiffer described the organism as a short, fine bacillus measuring from .5 to 2 microns in length, decolorized by Gram's method, staining but poorly with the ordinary aniline dyes, but clearly with dilute carbol fuchsin solution. It is non-motile and non-sporebearing. Growth will not take place upon any of the ordinary culture media. By a series of exclusive tests Pfeiffer demonstrated that hemaglobin was necessary for the cultivation of the organism. Growth takes place upon hemaglobin agar in from 18 to 24 hours. The colonies appear as fine, pinhead-sized and smaller, greyish transparent points. Growth will take place in hemoglobin bouillon, but only beneath the surface, as the organism is an obligative aerobe. The organism grows well in symbiosis, with the staphylococcus, aureus and albus, *B. diphtheriæ*, gonococcus and *B. xerosis*, the fine colonies of the influenza bacillus appearing radially arranged about the larger colonies of the staphylococcus, etc.

Fresh isolated bacilli remain viable but a few days; older cultures may be maintained for from two to four weeks in the cold. One or two hours' drying of the cultures suffices to kill the organism. In sputum they appear to resist drying from 24 to 48 hours, suggesting that infection is only possible by means of droplets of coughed-up material. A temperature of 60 degrees for a few minutes is sufficient to kill the organisms. They are similarly poorly resistant to chemical agents.

The ordinary laboratory animals are immune to the bacillus. Pfeiffer and Beck were able to produce in one or two monkeys a disease similar to that in the human individual. Other observers have had difficulty in corroborating these findings. Pfeiffer and Kolle and Delius have been able to produce symptoms of the disease, such as dyspnea, paralysis, etc., in rabbits by the injection of toxins of the bacilli. Although the mouse and guinea pig cannot be infected with the production of disease, the influenza bacillus will grow in the peritoneal cavity comparatively readily for a short time. The ordinary antibodies to bacterial invasion are apparently reproduced in the

human being, as shown by the fixation of complement, agglutination and precipitation tests. The diagnosis of the disease, too, has been aided by means of these reactions, especially that of agglutination of the bacilli, by serum of patients suffering from the infection.

In isolating the organism from the sputum, especially in those cases suffering from pneumonia, the small, yellowish floccules are to be sought for. When these are pressed out and stained by Gram's method, counterstained with dilute fuchsin, the small rods are usually found in enormous numbers, especially within the polymorphonuclear leukocytes, many of which are completely filled with masses of the bacilli. Earlier in the disease large numbers, too, are seen outside the cells. This typical picture is, as a rule, only found in those cases suffering from acute or severe attacks and is less frequently seen now than heretofore. As a rule, in the ordinary cases of grippe, a comparatively large number of the bacilli are present in the secretion from the naso-pharynx or the throat, and may be found either in the sputum or in smears made by swabbing the fauces, etc. At a certain stage earlier in the disease, even in the less acute cases a more or less typical picture is usually present. The appearance of this picture, however, does not, as a rule, last long. It is more usual to find typical looking organisms accompanied by a larger or smaller number of the ordinary throat bacteria, such as the *Micrococcus catarrhalis*, pneumococci and streptococci.

In cultivating the organism the floccules should be washed in a sterile saline solution and surface seded upon hemoglobin agar, 1.5% acid. By this method the organisms are grown comparatively easily, there usually being a sufficient number of staphylococci present to allow the organisms to grow in symbiosis. It would appear that no very similar bacillus is normally present in the upper respiratory tract in considerable numbers. There are, however, several small bacilli found in certain conditions which will be referred to later.

With regard to the pathology of influenza, the disease is usually divided into three groups, viz., respiratory affections, affections of the gastro-intestinal tract and nervous manifestations.

The affections of the respiratory tract show comparatively

few distinctive features as compared with those of acute inflammation, due to other organisms. There is an increase in serum and mucous exudate with the larger or smaller number of polymorphonuclear leukocytes. Pfeiffer and numerous other observers have drawn attention to the fact that there is, comparatively, a smaller amount of fibrin in the exudate in the alveoli in cases of pneumonia due to the influenza bacillus than in that due to the pneumococcus, etc. Ribbert speaks in this connection of the absence of the dry granular appearance usually found and the presence of a glistening moist surface in pneumonia of influenzal origin. Miliary abscesses, too, are more common in the influenzal pneumonia than in that due to the ordinary invaders.

Chronic conditions in the lungs are very frequently met with following influenzal pneumonia, either in the form of a chronic interstitial fibrosis or the formation of bronchiectatic cavities. Three years ago the writer, along with Richards, published a report of several cases of bronchiectasis due to the influenza bacillus, which during life simulated exactly chronic tuberculosis, the diagnosis only being made upon the absence of tubercle bacilli and the presence of the bacillus influenzae. In these cases the sputum was of a characteristic and sickening odor, creamy or watery in consistence and of a bright yellow color. A small Gram negative bacillus is also found in the sputum of tuberculous patients, usually an anaerobe producing a very foul odor.

The "middle ear disease" in influenza is usually due to a mixed infection with the *b. influenzae* and either the pneumococcus or streptococcus. The bacillus influenzae may be the cause of acute catarrhal conjunctivitis, either with other symptoms of the disease or simple.

The majority of the nervous disturbances can be classed as functional; that is to say, no histological changes can be made out, the toxins of the bacillus alone apparently being the cause of the manifestations. Acute encephalitis and meningitis may be caused by the bacillus. In these cases the entrance of the organism is apparently usually through the sinuses of the lamina cribrosa and by means of the lymph or blood stream, usually the former.

Fatty degeneration of the liver and parenchymatous nephritis

may be induced by means of the injection of the toxins of the bacilli in animals, as also clinically various paralyses and interference with the heart's action. Occasionally miliary abscesses showing a pure culture of the bacillus may be found in distant parts of the body. This condition is, however, very rare. By repeated injections of bacilli into the brain of a rabbit Catani was able to recover from the miliary abscess produced a bacillus of highly exalted virulence. In the gastrointestinal tract the lesions produced are usually simple hemorrhages in the submucosa; occasionally ulceration takes place. One or two cases of acute general peritonitis by extension have been reported.

In addition to the bacillus influenzae, there is a certain number of organisms, similar in appearance and staining reactions. One organism, known as the bacillus pseudo-influenza, is described by Pfeiffer as occurring in the respiratory tract. This organism is so similar that by many it is considered to be identical with the classic Pfeiffer's bacillus. Involution forms in the shape of long threads are more common than in the bacillus influenzae. It also grows more readily upon media not containing hemoglobin. A similar organism, described also as a pseudo-influenza, has been mentioned by Nedden.

The small, fetor-producing organisms, found in cases of putrid bronchitis and in endometritis, cannot be differentiated morphologically from the bacillus influenzae. These organisms are of two types: one is an obligative anaerobe, and the other grows upon various media with a heavy grayish growth characterized by a very foul odor.

There is normally, too, a small bacillus found in the vaginal secretion which can neither morphologically nor culturally be differentiated from Pfeiffer's bacillus. This organism was first described by the writer and called by him the influenzoid bacillus of the vagina. Animal experiments with this organism were uniformly negative. Beck has described a small bacillus in an affection of rabbits characterized by a large amount of necrosis. This organism has also been upon two occasions identified by the writer.

Jochmann and Krause, Koplik, Davis and others have described a small bacillus, which grows readily upon plain agar from a number of cases of whooping cough. Whether this

organism is actually the cause of the disease or not is at present considered problematical. Bordet and Gengou have lately described another organism in this disease, also similar in appearance to the influenza bacillus, which, it would appear, is in all probability the causative agent. Woolstein has confirmed Bordet and Gengou's findings and considers this organism the cause of *peritonitis*? A certain number of other small bacilli have been found in a considerable number of diseases in animals. Their importance is, however, comparatively slight for our discussion here. In 1892 Koch described an organism in acute catarrhal conjunctivitis, the so-called pink eye, which was two years later cultivated upon hydrocele agar by Weeks of New York. Since that time it has been known by the name of the Koch-Weeks bacillus. The pathogenicity of this organism has been definitely established.

Two years ago McKee, working in the Montreal General Hospital, described a new pathogenic organism almost identical in appearance to the bacillus influenzae in cases of purulent conjunctivitis. This organism grows in extremely fine colonies upon blood agar, hydrocele and glycerine agar. The bacillus McKee can be distinguished from the bacillus influenza chiefly on account of the readiness with which a general fatal septicæmia may be set up in mice.

We find, then, in the consideration of the influenza bacillus that we have a certain number of organisms, more or less closely related to it, but, either owing to certain cultural or pathogenic peculiarities, being found only in parts of the body other than the respiratory tract, do not interfere in general with the diagnosis of this bacillus in the ordinary forms of influenza.

To sum up: It has been established that there is such a disease as influenza, caused by a well-recognized bacillus, which bacillus in the majority of cases can be identified with more or less ease. There are, however, a number of conditions simulating more or less closely influenza brought about by infection with other micro-organisms, more especially the pneumococcus, streptococcus pyogenes and perhaps the Micrococcus catarrhalis. An organism not here described, but associated with similar manifestations at times, is the Friedlander's bacillus pneumoniae.

Gastro-Intestinal Grippe.*

By SIDNEY K. SIMON, A. B., M. D., New Orleans.

Influenza, although essentially a disease of the respiratory tract, includes within the scope of possible attack almost any organ or apparatus of the body. The protean nature of its onset, as well as the varied and many-sided picture it presents at the bedside, is a matter of every-day experience with the clinician, and, indeed, has received striking emphasis by the diverse character of this present symposium.

The gastro-intestinal tract plays a not unimportant part in the symptomatology of the disease, both in its acute and more chronic manifestations. All authorities agree, in fact, upon a distinct gastro-intestinal type, at times entirely apart from any involvement of the respiratory organs, though most frequently the digestive disturbances either precede or accompany with more or less prominence those of the upper air passages. The onset and course of many of the acute infectious diseases with signs of gastro-intestinal irritation is by no means of uncommon occurrence and is a phenomenon not difficult to understand when one considers how intimately associated are the digestive glands with the process of excretion of toxins and how sensitive the gastro-intestinal mucosa becomes to the presence of the varied toxic agencies.

A direct infection of the tract, however, is not necessarily implied, and as a matter of fact the Pfeiffer bacillus has never been successfully cultivated from either the stomach or the intestines. It would, therefore, seem to follow that the digestive disturbances in influenza, as in other infectious diseases, are purely toxic or functional in character. Certainly the gross pathological findings likewise tend to add additional weight to this contention, since careful post-mortem examination has failed to reveal any distinct lesion along the entire gastro-intestinal canal. The bacilli, it is true, have been cultivated from the gall bladder and from pus pockets in the appendix and peritoneum, but, as in many of the acute infections, such as, notably, typhoid fever and pneumonia, it is probable the organisms have been carried through the blood or lymphatic stream and not by direct continuity from the gastric or intestinal lumen.

* Read before Orleans Parish Medical Society, April 25, 1910.

Whatever the exact nature of the irritation may be, however, and apart from the fact that a direct infection has not been proved, there can be no question as to the involvement, by no means rarely, of the stomach and intestines in the clinical picture of influenza. The symptoms are varied and include principally a loss of appetite, nausea, with severe vomiting at times and a more or less marked tenderness in the epigastrium. The bowels may be constipated, but not infrequently a simple diarrhea or one of intractable nature with bloody evacuations may develop in the course of the attack. As outlined before, these gastro-intestinal disturbances may constitute the full evolution of an influential seizure, making a diagnosis in such a case difficult, but more often they are seen to precede or accompany the more characteristic respiratory symptoms. The clinical type, according to observation, tends to vary with different epidemics so that one may justly speak at times of an epidemic of respiratory, gastro-intestinal or nervous influenza, depending on a predominance of the particular type of symptoms.

In this connection it must be remembered, however, that the form of grippe, as we see it to-day, differs in great respect from the picture presented during the first years following the great pandemic of 1889. At that time the disease spread with fury, as it were, through a virgin field, manifesting itself unchecked upon the unprotected organism. A degree of immunity has subsequently been acquired on the part of the populace, apparently not sufficient for complete protection against reinfection, but still impressive enough to modify and vary the course of subsequent attacks. It is for this reason that many of our former concepts and descriptions of influenza must receive new phrasing at the present time. During the height of our present sporadic outbreaks, it is not rare to see mild disorders of varied nature or even more serious complex pictures, wholly unexplainable except perhaps in the light of a distorted grippe in partially immunized individuals. This may hold, I have thought, more than we are perhaps willing to acknowledge for some unusual types of acute gastric disorders or of puzzling forms of diarrhea occurring particularly during the months of winter and early spring.

After the acute paroxysm has spent its force, the full debt

and tribute to the disease unfortunately often still remains to be paid.

In fact, influenza, perhaps more than any other acute infectious disease, saps the energy and strength of the individual and leaves its impress frequently for years after under various forms and guises. These after effects, as we see them so commonly in practice, are thus likely to be of a more serious character than the acute manifestations, which should always put us upon our guard against a too early prognosis. Along the gastro-intestinal tract it is certain we find a host of varied disturbances, claiming their origin from a previous attack of grippe.

In searching into the histories of stomach and intestinal patients I have often been struck by the prominent role which influenza is made to play as a causative factor. Most of these disturbances, as far as our present knowledge goes, are purely functional in character and are probably best explained by the profound depression of the nervous mechanism controlling the digestive apparatus. The nature of the disturbance is extremely varied and may include almost any of the large variety of functional gastric or intestinal disorders. But since no hard and fast line can be drawn, defining where the functional abnormality stops and the organic begins, the first frequently merging into the second, it is not altogether rare to find more serious organic gastro-intestinal disease, resulting from a perhaps innocent attack of acute grippe. I have in mind particularly the cases of atonic dilatation of the stomach, not rare after grippe, with subsequent stagnation and all its host of attending evils and distress. Again, the law of compensation of diseased organs throughout the body is often rudely broken by a grippal attack. The individual, let us say, has a slowly progressing form of chronic gastritis, but with sufficient reserve energy on the part of his stomach to carry on the manifold gastric functions without embarrassment.

The oncoming of an influenza, mild as it may be, may possibly serve now as the determining factor in disturbing the delicately balanced equilibrium of the diseased stomach.

To the patient, however, there is no question but that the grippe itself has been the direct cause of his gastric disorder, which dates from its onset. A somewhat similar reasoning will

probably best explain the connection, if any, between influenza and appendicitis, about which much was written in past years.

All things considered, we have come to regard influenza in gastro-intestinal practice, at least, with the greatest respect, realizing the many possible dangers that often lie hidden in its apparently innocent path.

Orleans Parish Medical Society Proceedings.

President, DR. B. A. LEDBETTER.

Secretary, DR. C. P. HOLDERITH.

141 Elk Place, New Orleans.

In Charge of the Publication Committee, DR. C. P. HOLDERITH, Chairman.
DR. HOMER DUPUY and DR. H. D. KING.

MEETING OF APRIL 25, 1910,.

DISCUSSION OF SYMPOSIUM ON GRIPPE.

DR. LANAUX: Since influenza is so common during the winter months, the three able papers just read on this subject are of great practical importance to us all. Dr. Elliott brought out a very important point in his talk, and that is the great depression, both physical and mental, that accompanies this malady. I can now recall one case which I saw with Dr. Elliot the latter part of the winter which had been treated with cough mixtures containing heroin and codein to allay the cough, and phenacetin in large doses for temperature. In this case there was marked depression, but after the administration of stimulants in the form of strychnin, brandy and proper nourishment the patient made a rapid recovery. The point that I wish to make is that in influenza the depression is greater in proportion to the symptoms in the individual case, and this should be borne in mind.

DR. STORCK: Speaking to Dr. Simon's paper, I wish to emphasize the apparent role that influenza seems to play in the causation of appendicitis. Sonnenberg, Armour, Abbe, Howard,

Kelly, Deaver and others are inclined to the belief that it has more or less influenza in increasing the occurrence of appendicitis. My own experience leads me to look upon appendicitis as a sequela of gastro-intestinal influenza. During the prevalence of much influenza its gastro-intestinal form is easily diagnosed; at other times it might be confounded with typhoid fever. Albutt and Dalton both report cases with rose-spots. After typhoid, epistaxis is the next most frequent in influenza. In typhoid the patient feels under the weather for a week or more. In influenza the symptoms, as a rule, come on quickly. Sweating is the exception in typhoid; it is the rule in influenza. I recall a well-defined case of gastro-intestinal influenza which simulated seasickness.

I wish to subscribe to what Dr. Elliot said regarding the possibility of influenza mistaken for tuberculosis. Time alone is required to clear up the diagnosis.

DR. DUREL: The point brought out by Dr. Elliott of mistaking influenza for tuberculosis happens very often, for cases have been sent to me with a diagnosis of tuberculosis, but after careful examination I have found them to be cases of grippe. Many of these cases, from a diagnostic standpoint, can be cleared up by the tuberculin test, and the one I generally use is the Von-Pirquet method. In grippe there is a stage of the disease, that is the first three or four days, in which it takes away or delays the tuberculin action; but after this stage the body is again susceptible to the test.

IMPORTANT NOTICE.

Round Trip Rates to the Meeting of the American Medical Association, in St. Louis, will be as follows: Fare \$22.70; sleeper \$4.50 each way. Tickets will be on sale from June 3 to 8.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D.

ISADORE DYER, M. D.

Sanitary Education of the Public.

The public has at all times needed some education in sanitary matters, but it can hardly even yet be said to have demanded it. The opposition at times to legislation at the protection of the public is evidence of this. The times are changing, however, and the public is now ready to learn many things, and it is to be hoped that the day may come when the things they learn may be put in practice.

The Louisiana State Board of Health has followed the good example of the cities of Chicago, Richmond and other communities in issuing a bulletin carrying not only statements of existent conditions, but also valuable suggestions regarding the means of making sanitary precautions effective.

The Bulletin for May 1 discusses in understandable language the sources of commoner diseases and the way of their prevention. The circulation of such educational tracts must encourage the belief that after a while the public will heed the lessons given, and we have already suffered too much from the ignorance in these matters not to wish to spread the good work of an interested body of health officers. With a proper knowledge of the commoner infectious diseases, the public will be ever ready to safeguard against them. The examination into the New Orleans milk supply and the frequent punishment of dishonest vendors have, together, helped to make the parents careful of the milk they feed to their babies. Food inspection has created the demand for purer products and now more than ever the would-be purchaser looks for the guarantee on the label.

Education is undoubtedly the most valuable aid to civic development, and in sanitary matters as well as in domestic, and we are hopeful of still further improvement if our Boards of Health, State and city, go on with the good work they have begun.

State Society Session.

The thirty-first annual meeting of the Louisiana State Medical Society took place in New Orleans from May 2 to 5. The first day's proceedings were limited to the House of Delegates.

All told, the attendance was the largest in the history of the Society; the total registration, including 29 guests, aggregating 403, with 224 from Orleans and 150 from all the other parishes.

While the scientific program was not as congested as in the past few years, there were many valuable contributions from the physicians of the State, and interesting papers by Dr. John Lovett Morse, of Boston, and Dr. Cunningham Wilson, of Birmingham. More time was available for discussion, and undue haste was not necessary to reach the end of the program in due time.

There were the usual opening addresses, more than sixty original articles, a scholarly address by the annual orator, Prof. Morton A. Aldrich, and numerous clinics were open to the members at all the educational institutions and hospitals of the city.

The House of Delegates had the business end well in hand. Among the most important items that may be mentioned were the remodelling of the constitution and by-laws; the adoption unanimously of a resolution requesting the American Medical Association to provide for the initiative and referendum; the endorsement of New Orleans as the logical point for the World's Panama Exposition; the approval of the Owen Bill for the creation of a National Department of Health, and the selection of Shreveport for the next meeting.

Luncheons were tendered daily to the visiting members, and the closing banquet at the Hotel Grunewald was largely attended and eminently successful.

It is to be regretted that the President, Dr. Charles McVea, was summoned away early during the session, but Dr. Robert Littell replaced him with ability during most of the meetings.

Much credit is due to the Committee of Arrangements, and especially Dr. L. R. De Buys, its chairman, for the satisfactory planning and execution of the many intricate details that tend to make a meeting agreeable and successful.

Dr. Edward J. Graner was elected President, and Dr. Jos. D. Martin Secretary, for the ensuing year, while Dr. Bass was re-elected Treasurer. The next annual session will be held in Shreveport from May 30 to June 1, 1911.

Abstracts, Extracts and Miscellany.

Department of Obstetrics and Gynecology.

In Charge of DR. P. MICHINARD and DR. C. J. MILLER, New Orleans.

THE TREATMENT OF PLACENTA PREVIA.—J. Veit (*Berl. Klin. Woch.*, Nov. 22, 1909) is of the opinion that the surgical era is responsible not only for a lessening in the interest of obstetric technique, but also for a falling off in technical skill. It scarcely seems worth while to learn how to perform version today, when the knife is in the practitioner's hand every minute. Veit considers that this is not in the interest either of the profession or the lying-in woman. Kronig and Sellheim have suggested performing Cesarean section as a routine treatment, and according to Veit certain experienced obstetricians were polite enough to agree with these two authorities. He refuses to acknowledge Cesarean section as a means of treatment of placenta previa, and states that he will not condescend to make any concessions out of politeness. Others may do as they like, but he is determined to let the world know that the treatment of this condition can very well be carried out without such a severe operation. In recording his experience, he states that, as a young man, practically every woman who was found to have placenta previa was plugged and transported into the Berlin clinic and died there. He was still an assistant when Braxton Hicks introduced his combined version; there was no more transport, the version was performed in the patients' homes, and the majority survived. After a time it was realized that the cost in children's lives was great, and in order to improve this condition the metreurynter was introduced. The result, as far as the mother was concerned, was equally favorable, and there was a slight gain in infant life. It must, however, be remembered that the mortality among the children is high partly owing to the fact that in many cases the hemorrhage occurs before full time, and the infants prematurely born are not so resistant as full-time infants. Rupture of the membranes also yielded relative good results. Veit points out that the technique is not simple in any of the manipulations.

With regard to the rupture of the membranes, the pressure of the finger nail must be exercised in such a way that not more of the placenta is detached from the uterine wall than has already been detached. The skilled obstetrician will, therefore, employ this method with great care, and only in cases of lateral or marginal placenta previa. With regard to metreurynter treatment, the bag employed is either that of Champetier de Rives or Muller. The bag must be introduced into the cavity, and it is, therefore, necessary to rupture the membranes first. Again, care must be taken not to separate any more placenta from the uterine wall, since this may lead to the death of the fetus, owing to a limitation of oxygen. This method is also only applicable when membranes can be felt at the side of the placenta. It has, however, an advantage over simple rupture of the membranes, in that the position of the fetus is immaterial. In the case of simple rupture of the membranes, it is necessary that the presentation be a vertex one. The head must be able to plug the bleeding surface. Turning to combined version, Veit insists on the technical difficulty of the manipulations. It is necessary to pass a finger or more into the uterine cavity without separating any placenta from the uterine wall. Air emboli may kill the patient if the hand is passed between the placenta and the uterine wall. As soon as the operation has reached the cavity of the uterus, within the membranes, a foot is seized and brought down. The leg is then left in situ, and no further manipulations are to be made until the child has been born as far as the umbilicus at least. The conditions for the child are not favorable, since the presentation is that of an incomplete footling. In comparing these methods with Cesarean section, Veit admits that, in the hands of a skilled surgeon this operation need not be dangerous. But he argues very strongly that if equally good results can be obtained without recourse to an unnatural means of delivery, the practitioner is not justified in using the unnatural method. There can be no doubt that every woman would prefer delivery in the ordinary way *per vias naturales* to being cut open. When the os is rigid or cannot be dilated sufficiently to admit of immediate delivery after version, he compares the importance of anterior hysterotomy with accouchement forcé. He finds that the latter method is not dangerous if the tear is sutured at once, and it possesses this

advantage over the former, that no preparations need be made before carrying it out. In defense of his doctrines, he cites some cases which he dealt with in order to compare the results with those obtained by others. The placenta previa cases were sent into hospital as soon as they were recognized, and in the course of four months he was able to deal with nineteen, including five of deeply-placed placenta. All the mothers survived, while fourteen of the infants were born alive and discharged alive. In summing up, he gives the following directions for the treatment of placenta previa. He assumes that a practitioner who undertakes the treatment of placenta previa possesses the necessary skill to avoid further detachment of placenta and to apply sutures, etc.: If the child is premature or dead, combined version and waiting; if the placenta is situated low or is lateral or marginal (a) in vertex presentations, rupture of the membranes; (b) in all other presentations, metreurynter for eight hours, then version and extraction, with subsequent suture if necessary. If there is placenta previa centralis, either accouchement forcé with suture or anterior hysterotomy. In some cases it may be necessary to plug the vagina. If the practitioner does not feel capable of carrying out these manipulations, the vagina should be packed and the woman sent as quickly as possible to the nearest clinic.—*British Medical Journal*. MILLER.

Department of Nervous and Mental Diseases.

In Charge of Drs. P. E. ARCHINARD and R. M. VAN WART, New Orleans.

A SPINAL COLUMN IN SPONDYLOSE RHIZOMELIQUE. SPINAL ANKYLOSING RHEUMATISM AND TABES.—(Oddo, *Nouv. Icon. de la Salpêtrière*.) Recent work has given us a new chapter in pathology, that of medical affections of the spine. In spite, however, of the distinct types which have been described by Pierre-Marie and Leri, certain points are still obscure.

The writer gives an account of a case of spondylose rhizomelique which absolutely conforms to the type described by Marie and Leri. The lesion affected the whole spinal column, and was characterized:

a. By the regular and geometrical curve of the spinal column, formed by a dorso-lumbar cyphosis, a short cervical lardosis and a slight sclerosis.

b. By a subsiding of the vertebral bodies, which causes the preceding curves.

c. By a vertical ankylosis resulting from a fibrous ossification of all the spinal ligaments, with the exception of the anterior and posterior spinal ligaments.

d. By rarification of the old bone tissue, contrasting with the condensation of new-formed tissue.

e. By a complete absence of osteophytes and of bony growth.

This type differs clearly from (1) ankylosing spinal rheumatism, which is rectilinear, effacing the normal curves instead of accentuating them, and from (2) the heredo-traumatic kyphosis of Bechterew, in which the lesions, localized to one region, appear to be the result of rupture of the ligaments resulting from the injury. The main lesion is the ossification of the common anterior spinal ligament, in the concavity of the curvature.

The writer's case confirms the pathological anatomy of spondylose rhizomelique as given by Marie and Leri. Disease is a peculiar ossification, localized to the ligaments, the cotyloid ligaments, and the menisci. In the author's case the ligaments are ossified, petrified, one might say, so as to cause fusion of the apophyses and the plates which they join. This work of ossification takes place in each variety of ligament.

Ossification proceeds, fibre by fibre and is regular smooth or slightly rough without any marked exostosis or hyperostosis. An experienced eye can distinguish the lesions at the first glance.

Absence of exuberance in the process of ossification avoids any compression either at the level of the intervertebral foramina or on the cord itself. The process of ossification is secondary to osseous rarification. This is manifest in the case in question. There is great fragility of the column, so much so that it was impossible to avoid breaking it in handling. The ossification is a process of compensation (Leri), a mechanism of defense to limit the bending of the column. It begins in the ligaments at the level of the convexity of the curvatures before there is any trace at the concavity. The orientation of the ankylosing process can be modified

by the attitude of the patient. One patient has his head fixed in an attitude which allows him to look at work on his knees; another has it drawn up so that he can look before him. In treatment one should try to give patient the attitude most useful to him.

Various opinions are held as to the participation of the cord in the ankylosing process. Marie and Leri think absence of any sign of compression is the essential character of spondylose rhizomelique; the only nervous symptoms here are pain and muscular atrophy. Bechterew describes the hereda-traumatic kyphosis as medullary symptoms (1) a paretic condition of the muscles of the trunk, neck, limbs, often with slight atrophy of periscapular muscles; (2) dulling of sensibility, mainly in region innervated by dorsal and lower cervical roots, sometimes also by lumbar roots; (3) signs of irritation of spinal nerves, paresthesia, etc.

Presence of marked symptoms of spinal irritation distinguishes the syndrome of Bechterew from that of Marie-Strumpell; but Bechterew found in one case degeneration of posterior columns, disseminated lesions of antero-lateral columns, etc.; and an involvement of the meninges in spondylose rhizomelique has been noted by Donetti and others. Syringomyelic phenomena have also been observed (Achard, etc.).

In 1903 Babinski gave to the Society of Neurology, under title of spondylosing pseudo-tabes, three cases with lightning pains and absence of knee-jerks, presence of Achilles jerks, and no other sign of tabes. These were cases of lesion of the posterior roots, produced by spinal inflammation at the level of the intravertebral foramina.

Nervous troubles are frequent in ankylosing rheumatism, because of the osteophytic productions which distinguish this form. Oddo describes in detail a curious case, in which diagnosis between spondylose rhizomelique and ankylosing rheumatism is difficult. Along with vertebral ankylosis, there were signs of tabes, marked sensory trouble, motor inco-ordination, myosis, sphincter troubles, absence of reflexes—not pseudo-tabes, but real tabes.

As to the connections between tabes and the vertebral lesion, the patient contracted syphilis after onset of the spinal troubles. Case is not one of syphilitic spondylose, but the syphilis was the origin of his tabes. It is difficult to be sure that the spinal lesion had absolutely nothing to do with the production of the tabes.

Vertebral rheumatism, much more than spondylose rhizomelique, has, on account of its osteophytic character, a marked action on the roots, especially the posterior roots, and this action may determine the tabetic process if it is exercised on a syphilitic cord.

The author thinks that vertebral ankylosis, either spondylitic or rheumatismal, may have a discrete and limited action on the roots and posterior columns. It then causes the spondylitic pseudotabes of Babinski. If syphilis intervenes, this action may become more extensive, and it then furnishes the impetus to the syphilis which makes it productive of true tabes.

VAN W.

A CASE OF BROMISM.—(Von Hankeln. *Allgemeine Zeitschrift für Psychiatrie*. LXV., 65.) The patient was an epileptic, who, in a very short time, was given very large doses of potassium bromide, and some time after the commencement of the cure changes in the speech and writing were noted. The patient was confused, sleepy and had many hallucinations of sight. There was a good deal of retardation and a high-grade disturbance of the intelligence. Examination of the body showed sluggish pupils; diminution of the corneal, conjunctival and phalangeal reflexes; increase in the patellar reflexes, large quantity of bromide in the urine. Under the removal of the bromide the patient quickly recovered.

VAN W.

ON THE RELAXATION OF THE MUSCLES IN ORGANIC HEMIPLEGIA.—(Noica and V. Dumitrescu, Bucharest, *Revue Neurologique*, 1910, Jan. 30.)—Babinski has regarded hypotonia as a sign of palsy of cerebral origin. The authors, in the service of the Pitié and later at Bucharest, have found that hypotonia, as shown by the more acute angle to which the forearm can be flexed, is not more frequent than hypertonia. The latter patients always show contracture and exaggerated reflexes. The former may show no synkinesis or contractures, although the reflexes are exaggerated, but they show pronounced muscular atrophy. Intermediate cases are found.

The hyperflexion of the forearm is permitted by the relaxed triceps. In these cases, extension of the forearm reveals a latent contracture of the flexors. Thus the hyperflexion is permitted by the atrophied muscles unless there is contracture of the triceps, in which case there is hypoflexion. Hence hypo-

tonia cannot be invoked to explain the hyperflexion sign, which is due to atrophy of the muscles, except when this is overcome by the spasticity which results in contracture. The opinion of the authors that the muscles are atrophied appears to emanate from the softness they ascertain on palpation; and it might thus be well to accept their conclusions with reserve. VAN W.

JUVENILE SPASMODIC ASTEREOGNOSIS. (GEORGE GUILLAIN and G. LAROCHE, *Revue Neurologique*, 1910, Jan. 15.)—A remarkable case beginning with paræsthesia in one hand and later in the feet, and progressive severe loss of the sense of attitudes of both hands and wrists, along with exaggeration of all the reflexes and paresis of the forearms and hands, with synkinesis and general exaggeration of deep reflexes with plantar extension. The movements of the arm can be controlled only when the patient views them. There is complete astereognosis in both hands, with some loss of the appreciation of weight. There is no loss of tactile or thermic sense. Vibrations cannot be appreciated in the hand, and are only slightly so in the forearm. There is no intentional tremor nor cerebellar dysergia.

The authors exclude infantile paralysis, pathomimia and insular sclerosis; they believe that they are dealing with a systemic dystrophy of the cortex. VAN W.

Medical News Items.

MEETING OF THE CLAIBORNE PARISH MEDICAL SOCIETY.—This society met at Athens, La., Tuesday, April 26, with the following members in attendance: Drs. H. C. Baucum and L. T. Waller, of Haynesville; J. W. Day, P. Gibson, A. R. Bush and W. L. Stone, of Homer, and C. A. Bailey, J. F. Simpson and C. C. Craighead, of Athens. Officers were elected for the coming year, as follows: Dr. J. W. Day, President; Drs. Gibson and Waller, Vice-Presidents, and Dr. W. L. Stone, Secretary. Dr. L. T. Waller was elected delegate to the State medical meeting held in New Orleans during the past month. Excellent papers were read by Drs. Simpson and Craighead.

After the morning session the physicians and a large number of friends were invited to a most elaborate dinner at the resi-

dence of Dr. C. A. Bailey. Mrs. Bailey, who is famous as a hostess, was assisted by Mrs. J. F. Simpson. Among others present, in addition to the doctors, were Mr. and Mrs. Thos. Bailey, Mr. T. W. Simpson, the Misses Harris and Bailey and Mrs. W. L. Stone.

MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY TO BE ENLARGED.—Announcement is made of gifts aggregating \$3,000,000 to Washington University, St. Louis, and of a plan to enlarge the medical department of the university by the expenditure for buildings and equipment of between \$5,000,000 and \$6,000,000. The \$3,000,000 gift was made by Mr. W. K. Bixby, Mr. Adolphus Busch, Mr. Edward Mallinckrodt and Mr. Robert S. Brookings, all of St. Louis. Property valued at \$3,000,000 is to be used in addition to the \$3,000,000 cash in enlarging the medical school. Among those who already have agreed to join the enlarged faculty are Dr. George Dock, of Tulane University, New Orleans, to be director of the department of medicine; Dr. John Howland, of the University and Bellevue Hospital Medical College, to be professor of pediatrics; Dr. Eugene L. Opie, of the Rockefeller Institute for Medical Research, to be professor of pathology, and Dr. Erlanger, of the University of Minnesota, to be professor of physiology.

DALLAS MEETING OF TEXAS ASSOCIATION.—The Texas Association meeting in Dallas, May 10, 11 and 12, was largely attended and had an excellent program.

THE LOUISIANA STATE PHARMACEUTICAL ASSOCIATION held its twenty-eighth annual meeting May 24 to 27, 1910.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION will meet at the Planters' Hotel, St. Louis, Mo., June 4 and 6.

THE NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS will hold its twentieth annual meeting at the Southern Hotel on Monday, June 6. An invitation to attend is extended to the members of State Boards, professors and teachers in medical schools and to all others interested in medical education.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE will hold its seventh annual meeting at the Medical School of the St. Louis

University on Saturday, June 11, under the presidency of Dr. Wm. C. Gorgas. An interesting program is announced, with contributions from the following New Orleans physicians: Drs. Bass, Gage, Lemann, Couret, Duval and Gurd.

GOVERNMENT POSITIONS VACANT. BACTERIOLOGISTS AND PATHOLOGISTS.—Assistant professor of Bacteriology and Pathology in the Philippine Service. This position, at a salary of \$2,250 per annum as bacteriologist and pathologist in the Bureau of Science in Manila, with a vacancy in the position of assistant professor of bacteriology and pathology in the Philippine Medical School, at a salary of \$2,000 per annum, is announced. No examination is necessary, but eligibility will be determined upon evidence furnished in connection with application concerning education, training and experience. Applicants must be graduates in medicine, trained in bacteriological laboratory work, have a fundamental knowledge of pathology, anatomy and a knowledge and training in immunity and serum therapy. They must be young, healthy and energetic and capable of doing research work. Full details should be given with regard to these qualifications. Applicants should apply at once to the United States Civil Service Commission at Washington for application forms. The examination date is fixed for June 8.

MEDICAL INTERNE GOVERNMENT HOSPITAL FOR INSANE.—This position, at \$600 per annum, is offered at the Government Hospital for the Insane at Washington, D. C., and includes, in addition to the salary, maintenance and provides for promotion. Applications should be made to the United States Civil Service Commission, Washington, D. C. The date of the examination is June 15. Further information may also be had at any Pensioning Examining Board in the United States.

ST. LOUIS SKIN AND CANCER HOSPITAL announces its new building under the name of the Barnard Free Skin and Cancer Hospital. The position of senior house surgeon, or senior interne, is vacant. This position is open to competitive examination.

STATE BOARD OF PHARMACY EXAMINATION.—Twenty-seven applicants were examined by the State Board of Pharmacy May 6 and 7. The registered pharmacists successful were: Jake Jo-

hann Blum, Rhuel Broussard, Charles Lewis Gaulden, E. C. Quirk, Jacob S. Segura, F. Percy Theriot, Emmet A. Tomb, Roy S. Warnack. The successful qualified assistants were: Allen T. Gonzales, Sidney J. Gary, Watson Hatcher and George B. Thomas.

MANAGEMENT OF JOURNAL OF SOUTH CAROLINA MEDICAL ASSOCIATION has been changed and the Journal will now be printed at Charleston, under the editorship of Dr. J. C. Sosnowski.

ANNOUNCEMENT OF MEETINGS.—The Central Oklahoma Medical Association will hold its annual meeting at Enid, Okla., June 18, 1910.

The next meeting of the Texas State Board of Examiners will be held in Austin, June 27, 28 and 29.

The next meeting of the American Association of Medical Milk Commissions will be held at St. James Hotel, St. Louis, June 6.

PURCHASE OF THE NEW ENGLAND MEDICAL MONTHLY.—The New England Medical Monthly, for twenty-nine years edited and published by Dr. Wm. C. Wile, of Danbury, Conn., has been purchased by the Annals Publishing Co., of Boston, and will be combined with the Annals of Medical Practice.

THERE WERE 193 APPLICANTS before the Mississippi Board of Medical Examiners in May and fifty-nine passed. Seventy per cent failed.

PHYSICIAN SUES.—Dr. Allan C. Eustis, of Abbeville, has brought suit against Dr. H. A. Eldredge for damages in the sum of \$5,000 for defamation of character.

PERSONALS.—Among the doctors who attended the recent medical congress in Washington, D. C., were: Dr. Rudolph Matas, Dr. Geo. Dock, Dr. Edmond Souchon, Dr. Chas. Duval, Dr. H. D. Bruns, Dr. F. B. Gurd and Dr. M. Couret. Dr. Geo. Dock, of New Orleans, was elected vice-president of the Tuberculosis Congress recently in session in Washington.

Dr. Rudolph Matas, President of the American Surgical Association, was toastmaster at the banquet at the Willard Hotel, held by that organization.

Dr. Edmond Souchon was elected second vice-president of the International Association of Medical Museums.

Dr. Henry W. Stiles, of the Medical Department of Tulane University, has accepted the professorship of Anatomy at Syracuse University.

Dr. D. F. Waide has been appointed resident surgeon at the Senses Hospital.

Dr. B. B. Reynaud, of Baton Rouge, has located in Maison-Blanche building.

Dr. Albert Charles Carter, of Coushatta, La., has returned, after completing his fourth term at Vanderbilt University, where he was graduated in medicine.

Miss M. L. Witherspoon and Miss A. B. Kuhn are the two women graduates from the New Orleans College of Pharmacy.

Dr. C. J. Landfried has been appointed head of the division of the Ear, Nose and Throat at the Senses Hospital.

Dr. A. W. de Roaldes announces a partnership with Dr. Clyde Lynch, of New Orleans.

REMOVALS.—Dr. J. G. Yeargood, from Bayou la Chute, La., to Caspaina.

Dr. G. Fred Littlepage, from Mt. Sterling, Ala., to Butler.

Dr. E. W. Hunter, from Mer Rouge, La., to Greenwood, Miss.

Dr. W. C. Middleton, from San Augustin, Tex, to Logansport, La.

Dr. W. F. Wild, from 940 Pleasant street, New Orleans, La., to 217 Eighth street, Washington, D. C.

Dr. C. M. Harris, from Shreveport, La., to Montgomery.

Dr. T. J. Box, from Jacoby, La., to Torras.

Dr. W. Scheppegegrell has moved to the Audubon Building, New Orleans.

MARRIED.—On May 17, 1910, Dr. W. D. Roussel, of Patterson, La., to Miss Goldie Gardinal, of St. Martinville, La.

On May 10, 1910, Dr. John P. Leake and Miss Florence Jarvis, both of New Orleans.

At Tallulah, La., on April 22, 1910, Dr. G. H. Ogbourne and Miss Emmie Monette.

At Oakland, Cal., on May 8, 1910, Dr. Douglas W. Montgomery to Miss Charlotte Brooks.

Dr. Harris Pickens Dawson, of Montgomery, Ala., and Miss Jennie Tennent Barrow, of New Orleans, will be married June 2, 1910. Dr. Dawson has selected Mobile as his field of work.

DIED.—At Lake Providence, La., on April 30, 1910, Dr. Wm. T. Bell, aged 74 years.

At Monroe, La., May 15, 1910, Dr. M. A. McHenry, for many years a prominent physician of Monroe.

On May 11, 1910, Dr. Walter C. Jackson, of this city.

On May 16, 1910, Dr. Samuel C. Weeks, of New Orleans, aged 43. Dr. Weeks was well known in New Orleans and is regretted by a host of friends.

A memorial meeting was held in honor of Dr. Byron Robinson at the Whitney Opera House, Chicago, on May 22. Dr. William A. Evans, Commissioner of Health, delivered the address, and Prof. Charles R. Van Hise, President of the University of Wisconsin, presided.

TULANE NOTES.

Commencement exercises of the Tulane University of Louisiana were held on Wednesday, May 18. There were 109 graduates in the Medical Department and 172 matriculates in the Postgraduate Medical Department.

At the recent meeting of the Arkansas Medical Association the graduates of the Tulane Medical Department organized an Alumni Association and held an enthusiastic meeting, with a banquet following, on May 4.

The Texas medical graduates of Tulane organized permanently on May 10 at the Dallas meeting of the Texas Medical Association, with the following officers: President, Dr. Russel Caffery, San Antonio; Vice-President, Dr. J. B. Shelmire, Dallas; Secretary-Treasurer, Dr. James A. Hill, Houston. The next meeting will be held at Amarillo, Texas, in the Panhandle.

Tulane men expecting to attend the meeting of the American Medical Association and to join the alumni at their banquet on June 7 are urged to write at once notifying Dr. H. J. Scherck (Century Building, St. Louis) of their intention to be present.

The banquet will be held at the Jefferson Hotel, 7:30 p. m.; cost, \$3 per plate.

The graduating class of 1910 held their exercises on Saturday, May 14. In the morning at 11 o'clock the class assembled on the Tulane campus, planting their ivy by the Richardson Memorial with appropriate ceremonies. At night a large audience gathered to witness the class exercises at the Hutchinson Memorial. These were conducted with considerable enthusiasm, including the presentation of the class history, will, prophesy and poem, interspersed with musical selections and songs by the members of the class.

Book Reviews and Notices.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

The Etiology and Nature of Cancerous and Other Growths, by W. T. GIBSON, A. R. C. S. John Bale, Sons and Danielsson, London.

The chief argument in this most interesting brochure is aimed at establishing a relation between cancer and occupation. The chimney sweep (of London) is exemplified as the greatest victim, and the chemic poisons derived from his occupation and habits are suggested as related. Other occupations are entertained similarly. The deductions are logical.

DYER.

A Theory Regarding the Origin of Cancer, by C. E. GREEN. William Green & Sons, Edinburgh and London.

A plausible theory is advanced to prove the origin of cancer, due to parasitic organisms, fungus in type, finding soil in individuals whose occupations cause them to inhale chemic substances which make the way of the parasite easy. Sulphuric acid and its congeners are found in soot; certain occupations are associated with soot; cancer is more frequent in individuals engaged in such occupations. Interesting!

DYER.

Practical Medicine Series. Materia Medica and Therapeutics; Preventive Medicine; Climatology, by DRS. GEORGE F. BUTLER, H. B. FAVILL and NORMAN BRIDGE. The Year Book Publishers, Chicago. Volume VIII, Series 1909.

This book is a welcome guide to current advances and fills always a need of the general and busy practitioner. It reviews not only new remedies, but old ones in new usages, and the matter is so well and concisely arranged that it is valuable as a guide to practice.

The chapters on Preventive Medicine and Climatology more briefly review the recent publications on each of these subjects.

DYER.

New-World Science Series—Primer of Sanitation, by JOHN W. RITCHIE.
World Book Co., Yonkers-on-Hudson, New York.

More little books for public education are needed, and this little book on Sanitation should fill a place in popular estimation. Not only is the subject presented practically, but with so simple a reasoning that even young persons can follow. It is a good text for schools and not a bad book for physicians' handy reference. Graphic illustrations punctuate each article in this otherwise most readable "little book."
DYER.

Physical Diagnosis, by RICHARD C. CABOT, M. D. Fourth Edition. Wm. Wood & Co., New York.

This new edition of an accepted standard text has been revised to meet the views and advanced ideas of the author, who still impresses upon his book his personality and his practice. The clear method of topographic presentation of clinical diagnosis has been adhered to. This must stand as a valued text among teachers of clinical diagnosis.
DYER.

Essentials of Laboratory Diagnosis, by FRANCIS ASHLEY FAUGHT, M. D.
F. A. Davis Co., Philadelphia.

Introducing the subjects with a description of a microscope and its applicability to the uses of diagnosis, the author at once proceeds to consider special laboratory methods.

Altogether, the book makes a practical guide, to which may be added the discussions given as incidental to each subject presented.
DYER.

Tumors of the Kidney, by EDGAR GARCEAU, M. D. D. Appleton & Co., New York and London, 1909.

A most thorough and painstaking work. This book should be in the hand of every surgeon, especially the G. U. specialists.

Besides the attractive binding and the fine print on the best quality of paper, there are seventy-two clear and appropriate illustrations. Of course, the value of the work is in the text proper, which ranks with the best treatises on tumors of the kidney.

The author handles the subject in eleven chapters, all highly interesting. Special consideration is given, in the chapter on solid tumors of the renal parenchyma, to, as Garceau says, "the most important tumor affecting the kidney," Hypernephroma.

The author has culled from the Massachusetts General Hospital and the Boston City Hospital not only valuable tables of pathological data, but also clinical histories which enhance the practical utility of his work. Particular attention is called to chapters on tumors of the renal pelvis and ureter, on polycystic kidney, on the adrenal tumors, especially in children, to the latter of which a whole chapter is devoted.

The last, but not least, is on the determination of renal efficiency. We have never read such a complete exposé of this question; the different tests are most carefully and lucidly presented.
LARUE.

Manual of Operative Surgery, Vol. II, by J. F. BINNIE, A. M. C. M. (Aberdeen). P. Blakiston's Son & Co., Philadelphia, 1910.

We had the pleasure of reviewing and recommending the first volume of this manual. This second volume treats of the vascular system, bones and joints and amputations.

We can only praise this continued effort of Binnie to present to the profession in a succinct and comprehensive manner the latest, and per-

haps best, surgical ideas and methods. The abundance of illustrations, 550 in all, is worthy of special mention.

LARUE.

The Prevention and Treatment of Abortion, by FRED J. TAUSSIG, M. D.
C. V. Mosby Co., St. Louis, 1910.

This is a volume of 180 pages, in which the author presents in a practical manner the subject of abortion. It is addressed primarily to the general practitioner, but teachers and students as well will find it a valuable supplement to text-books. It is admirably illustrated, well arranged and comprehensive in detail. There are eight chapters devoted to general consideration of abortion, in which the frequency, anatomy, pathology, causes, symptoms, diagnosis and prognosis are treated. The second division contains four chapters devoted to prevention; the third division deals with treatment.

An appendix is added in which is discussed missed abortion, mole pregnancy, therapeutic abortion, an ergot and its preparation. Dr. Taussig presents here not only his personal conclusions, but those of the best European and America obstetricians. He has been careful in the selection of his references, definite in his instructions, and has constantly endeavored to make the book of practical value to the practitioner.

MILLER.

Diseases of the Bones and Joints, by JOEL E. GOLDTHWAIT, M. D., CHARLES F. PAINTER, M. D., and ROBERT B. OSGOOD, M. D. D. C. Heath & Co., Boston, 1909.

This recent exposé of the above-cited subject is quite timely. As it is said, this book is not exactly a work upon orthopedics nor upon surgery. It embraces many subjects with which we are too often confronted and not sufficiently familiar. The established reputation of Dr. Goldthwait and his co-laborers is a guarantee of the value of the work.

One is particularly struck with the lucidity of the text. Illustrations, numerous and appropriate, abound, especially concerning the X-rays.

One would at first think that the mention of aneurism in such a work was altogether foreign, but when he has read the article on that subject he realizes its importance.

Naturally, tuberculosis occupies the greatest relative space, its pathological joint conditions being exhaustively considered.

The third section of the book is devoted to lues of the bones and joints, osteomyelitis, rachitis, a splendid article on osteitis deformans, and other topics. Clinical histories of cases are given, adding to the already existing value of the text.

LARUE.

Practical Medicine Series. Volume VII. Pediatrics, ABT. MICHEL, and *Orthopedic Surgery*, RIDLON-STEINDLER.

This little volume presents in a condensed form reviews of the most important publications which have appeared during the year in the world's literature on the above-named subjects.

We read of a case of hematoma of the sterno-cleido-mastoid muscle in the new-born (similar to one seen by the reviewer in which at first sarcoma was suspected); the instillation of tuberculin into the eye for diagnostic purpose; urticaria following the administration of antitoxin; Flexner's serum and the value of lumbar puncture; large thymus with sudden death.

In the section on orthopedic surgery an excellent résumé of congenital dislocation of the hip and its conservative treatment is found. Tendon transplantation in infantile paralysis; bismuth injections in which Stern has substituted the sub-carbonate for the more toxic sub-nitrate; the

much debatable question of the value of tuberculin in joint tuberculosis and numerous other subjects are discussed.

LARUE.

Manual of the Diseases of the Eye, by CHARLES H. MAY, M. D. Wm. Wood & Co., New York.

The sixth edition of this valuable little *Manual on Diseases of the Eye* brings its matter thoroughly up to date and makes it without doubt the best work of its size for the student and general practitioner.

E. A. R.

A Practical Study of Malaria, by WILLIAM H. DEADERICK, M. D. W. B. Saunders Co., Philadelphia and London.

It gives us unusual pleasure to recommend this work, for more than one delightful reason. First, the book has a real value, such an one that it can be placed among the best on malaria. Second, it is written by one engaged entirely in private practice with no college title. Third, the author is a country doctor. Fourth, he is from Arkansas, located in the home of the severe forms of malaria, well trained by a thorough education, like other well-known investigators, and, as they, working "on the spot," acquiring invaluable experience. So the author is very close to Southerners, and his work must appeal to them in particular.

Some of the original photographic work reproducing natives and sceneries have such a local color that it seems to us we know the place and the people. Certainly, these pictures are strongly demonstrative.

The mass of facts and information within the covers of the book is genuinely excellent material. It is a type of modern scientific compilation with interesting, advanced theories and, at the same time, a type of modern practical guide pointing to more than one local drawback, underscored, for the specific purpose of remedying the evil.

Anyone of the unpretentious rank and file who wishes to be posted on malaria from all its standpoints, the historical included, need not get any other book than this, and, after studying it, he will certainly know something about malaria.

E. M. D.

Medical Diagnosis, by CHARLES LYMAN GREENE, M. D. P. Blakiston's Son & Co., Philadelphia.

The mechanical features of this *Manual for Students and Practitioners* are certainly very attractive, originally so. In addition to the pictures, the substance in it is worth commending, for it certainly "contains an enormous amount of information." Yet it were more accurate, in order to justify the title, *Medical Diagnosis*, to limit the matter to evidence of disease and to the differentiation of diseases; and in order to justify the claim to modernity, among other changes, it were more accurate to place, in the discussion of diseases, pneumonia among infectious diseases; and, to mean by rheumatic affection only rheumatic fever, or acute polyarticular rheumatism, which, by the way, should also appear among infectious diseases; and, finally, to relegate the various forms of joint involvements (infectious or not) from which rheumatic fever must be differentiated to a class apart of arthritides, reserving the term rheumatic exclusively, or especially, for the definite clinical arthritic picture we all know as acute polyarticular rheumatism, so characteristically associated with the heart. This is said in a spirit of frankness, simply as the matter is viewed, for the good of all concerned.

E. M. D.

Publications Received.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1910.

Surgery, edited by William Williams Keen, M. D., LL. D., and John Chalmers Da Costa, M. D. Vol. V.

Atlas and Text-Book of Human Anatomy, by Johannes Sobotta, M. D. Edited with additions by J. Playfair McMurrich, A. M., Ph. D. Vol. III.

LEA & FEBIGER, Philadelphia and New York, 1910.

Progressive Medicine, edited by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D. March, 1910.

Diseases of Infancy and Childhood, by Henry Koplik, M. D. Third edition, revised and enlarged.

A Practical Treatise on Fractures and Dislocations, by Lewis A. Stimson, B. A., M. D., LL. D. Sixth edition, revised and enlarged.

E. B. TREAT & CO., New York, 1910.

Transactions of the American Pediatric Society. Twenty-first Session. Edited by Linnæus Edford La Fetra, M. D. Vol. XXI.

Miscellaneous.

Proceedings of the Third Annual Meeting of the Association of Life Insurance Presidents. (Washington, D. C.)

Report of the Director of the Anemia Dispensary Service of Porto Rico. (Washington Government Printing Office.)

New and Non-Official Remedies. (A. M. A., Chicago, 1910.)

Handbook of Therapy. (A. M. A., Chicago, 1910.)

Biennial Report of the Louisiana State Board of Health to the General Assembly of the State of Louisiana. 1908-1909. (Brandao Printing Co.)

Reprints.

Report of a Case of Addison's Disease, With General Comments, J. A. Storck, M. D., M. Ph.

Intra-Cranial Neoplasms: Remarks on Diagnosis and Indications for Treatment; a Case Illustrating the Arrest of Early Paresis, Tom A. Williams, M. B., C. M.

Municipal Charities of Paris, France, Including the Principal Hospitals, by Francis Dowling, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans.
FOR APRIL 1910.

CAUSE.	White.	Colored.	Total.
Typhoid Fever.....	6	1	7
Intermittent Fever (Malarial Cachexia) ..			
Smallpox.....		1	1
Measles	18		18
Scarlet Fever.....	4		4
Whooping Cough.....	2	1	3
Diphtheria and Croup.....	3	1	4
Influenza	6	8	14
Cholera Nostras.....			
Pyemia and Septicemia		1	1
Tuberculosis.....	42	49	91
Cancer.....	24	7	31
Rheumatism and Gout		3	3
Diabetes	3		3
Alcoholism			
Encephalitis and Meningitis.....	4	6	10
Locomotor Ataxia.....			
Congestion, Hemorrhage and Softening of Brain.....	16	2	18
Paralysis	2		4
Convulsions of Infants		2	2
Other Diseases of Infancy	11	7	18
Tetanus.....		3	3
Other Nervous Diseases		1	1
Heart Diseases.....	39	19	58
Bronchitis	5	5	10
Pneumonia and Broncho-Pneumonia.....	18	24	42
Other Respiratory Diseases.....	1	1	2
Ulcer of Stomach.....			
Other Diseases of the Stomach	7	5	12
Diarrhea, Dysentery and Enteritis.....	44	23	67
Hernia, Intestinal Obstruction.....	1	1	2
Cirrhosis of Liver.....	6	3	9
Other Diseases of the Liver	5	1	6
Simple Peritonitis	1	1	2
Appendicitis.....	2	1	3
Bright's Disease	29	25	54
Other Genito-Urinary Diseases.....	4	7	11
Puerperal Diseases	4	2	6
Senile Debility	5	1	6
Suicide	4		4
Injuries.....	18	13	31
All Other Causes.....	50	47	97
TOTAL.....	374	274	648

Still-born Children—White, 25; colored, 12; total, 37.

Population of City (estimated)—White, 272,000; colored, 101,000; total, 373,000.

Death Rate per 1000 per annum for Month—White, 16.50; colored, 32.25; total, 20.84.

METEOROLOGIC SUMMARY. (U. S. Weather Bureau.)

Mean atmospheric pressure 30.01
Mean temperature 69.00
Total precipitation 0.90 inches.
Prevailing direction of wind, south.

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